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TANK ACES

GEORGE FORTY

FROM BLITZKRIEG TO THE GULF WAR

Twentieth-century warfare has produced its own peculiar brands of fighting élites, be they expert fighter pilots, daring U-boat commanders or 100-ops-plus bomber barons. The armies on the ground are no exception to this and have produced invincible warriors of their own – not least of whom are the tank aces.

Although one must wonder whether SS-Hauptsturmführer Michael Wittmann would have been so successful had he been commanding a Sherman instead of his redoubtable Tiger, it is the personality of the individual tank ace which is the most important factor, rather than his ability to seek out and destroy enemy tanks. Thus, it was the example of men like US Army Colonel Creighton Abrams and Israeli Lieutenant Colonel Avigdor Kahalany, rather than the number of enemy AFVs they personally knocked out, that influenced the other tanks commanders around them

Tank Aces concentrates on a worldwide selection of highly successful tank commanders, who, by their example, ability and courage, had a profound effect upon a particular tank battle or series of battles. The aces have been drawn from the armies of both sides – German as well as British and American; Pakistani as well as Indian. The author has covered tank battles from the first days of the Second World War, through Korea and Vietnam, to the Indo–Pakistani and Arab–Israeli conflicts, and the recent Gulf War.

Fully illustrated with photographs and specially drawn maps, *Tank Aces* not only describes the inspiring lives and careers of the most successful tank commanders, but also reinforces the fact that a tank ace does not operate alone – he is only as good as his crew of gunner, loader and driver.

$1 00

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SUTTON PUBLISHING

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They always say that it is not 'what you know' but 'who you know' that really matters, and I am very fortunate in having so many friends and excellent contacts worldwide who have contributed to this book. The list of those I must thank is a long one, and for ease of reference I have broken this down chapter by chapter. So, in addition to the Imperial War Museum, the Patton Museum of Cavalry and Armor, and the Tank Museum who have provided many of the photographs and background material, my thanks go to:

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Chapter 8: Col E. Dyer, Maj Gen Patrick Cordingley

I do hope that they are all satisfied with the result.

George Forty
Dorset
March 1997

INTRODUCTION

This is the third book I have written on the subject of tank commanding. The first – *Tank Commanders, Knights of the Modern Age* – was published in 1993; the second – *Tank Action, from the Great War to the Gulf* – in 1995; now comes *Tank Aces*, two years later. The first of the three is a general history of tank warfare from the inception of the first tank and, as far as individuals are concerned, it deals mainly with the great tank generals, such as Elles, Guderian, Patton, Rommel, Tal and Zhukov, who have influenced armoured warfare in their own special way. These men had one thing in common, namely that they led from the front, imposing their will on the battle by their sheer presence. *Tank Action* endeavours to show how a tank commander 'ticks', how he is trained and how he fights his battles, with examples from all ages of tank warfare. Now comes the third book on the subject, in which I am concentrating on the lives and careers of a worldwide selection of highly successful tank commanders, who, by their example, ability and courage, had a profound effect upon a particular tank battle or series of battles. I have covered tank battles from the Second World War up to and including the Gulf War, and I have endeavoured to include tank commanders from both sides, so there are German 'aces' as well as British and American; Pakistani as well as Indian; but sadly I have been unable to get any information from Egypt, Syria or Jordan. This is a great pity as I know from reading about the battles which took place in the Arab/Israeli wars that there were some extremely able and brave tank commanders in *all* the armies. Perhaps I will be able to rectify this omission if there is a follow-up volume. Some names inevitably occur in all three books – one could not, for example, expect to write a book about tank commanding without mentioning the German tank ace Michael Wittmann, and his deadly Tiger tank, who wrought such havoc on many battlefields during the Second World War. However, I have deliberately not confined this book just to those individual tank commanders who were skilled enough to knock out many enemy tanks. This is for a variety of reasons, as I will explain.

First and foremost, unlike a fighter 'ace' a tank 'ace' does not operate alone. A tank crew normally consists of a commander, a gunner, a loader/operator and a driver. Of course, in some tanks there are extra crewmen, such as the co-driver/bow gunner in the American Sherman medium tank of the Second World War, while in others – especially the smaller tanks – one crewman has to do more than one job, for example, in a two-man turret, where the commander must also load the gun. As tanks become more and more sophisticated while space remains always at a premium, devices such as automatic loaders take the place of crewmen, thus the tank can be made smaller and therefore easier to protect. However, until we reach an era when tanks can be completely remote controlled, no matter what size they are they will still need a crew to operate them, and the tank commander, although only part of that crew, remains the most important single component of this weapon system.

In addition to his own ability and that of his crew, the tank commander's success depends also on the firepower, protection and mobility of his revolutionary weapon system, the tank. Undoubtedly, Wittmann was a skilled tank commander, but one must wonder whether he would have fought for so long and knocked out so many enemy AFVs if he had been commanding a Sherman instead of his redoubtable Tiger. The 56-ton Tiger, with its deadly 88-mm gun and thick armour, was, tank for tank, a far better weapon system than, say, Lt Col Bob Foote's battered old Matilda II or Cadet Roman Orlik's tiny little TK S with its ridiculous 20-mm cannon! Many tank commanders in this book fought in the Sherman, the ubiquitous medium tank which was built in larger numbers than any other tank during the Second World War, yet it was known by friend and foe alike as the 'Tommy Cooker' or 'Ronson Lighter' because of its propensity to brew up when hit. Nevertheless, tank commanders like Lafe Pool and Buck Kite showed themselves to be tank 'aces' despite the mediocrity of their equipment compared with that of the enemy. Undoubtedly, the Tiger and Panther gained an almost mystical reputation long before the Pershing, Comet and Joseph Stalin I, II and III evened up the balance. Perhaps this will help explain why past books on tank 'aces' of the Second World War have generally only featured German tank commanders in their more survivable AFVs. I hope this volume will go some way towards setting the record straight and show that there were – and still are – many excellent tank commanders in all nations.

Of course, the tank does not often operate on its own. It is normally an integral part of a tank platoon/troop, which invariably is part of a company/squadron combat team of all arms. This goes on at every level through battalion/regiment/battle group/combat command, through brigade/brigade group to division and above. I have deliberately stopped at divisional level, because it is rare for a commander above this level to become personally involved in a tank versus tank battle, although it is not unknown. However, even above single tank level it is the personality of the tank 'ace' which is the most important factor, rather than his ability to seek out and destroy individual enemy tanks. Thus, it was the example of men like Col Creighton Abrams, Lt Col Avigdor Kahalany and Oberst 'Panzer' Schulz rather than the number of enemy AFVs they personally knocked out that influenced the other tank commanders around them.

Thus *Tank Aces* is not a 'black and white' subject and contains many grey areas, as I have discovered during the fifty-plus years that I have been involved with tanks. It is certainly a subject which will engross me for many years to come, and one which I hope will provide interesting reading for tank enthusiasts the world over.

THE SECOND WORLD WAR

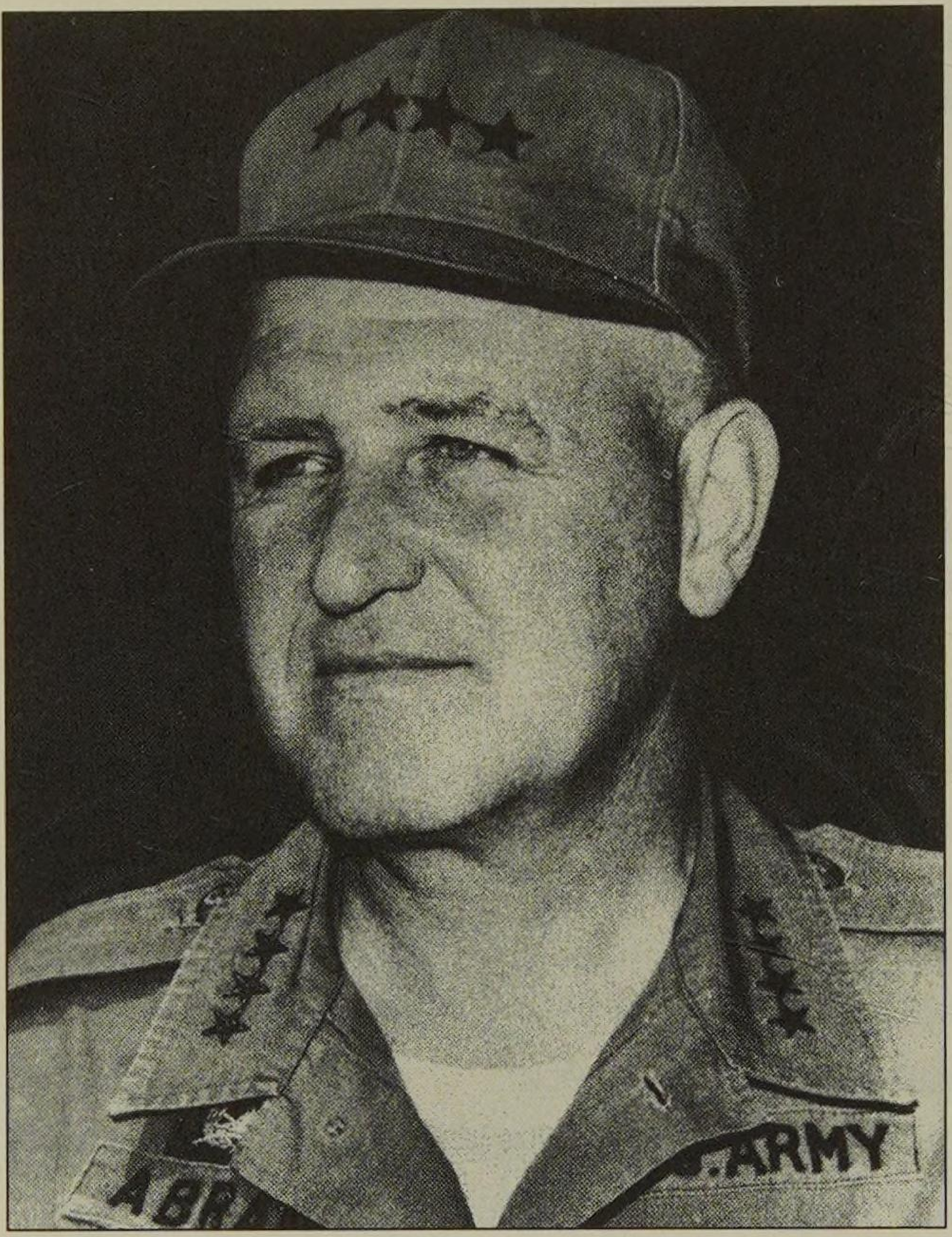
US ARMOR'S FINEST

Although the US Army had pitifully few tanks at the beginning of the Second World War, and equally few men with tank expertise – neither as designers nor as tank crewmen – it nevertheless corrected this shortcoming incredibly quickly, mobilizing its vast industrial potential and building an incredible 88,410 tanks during the war years. It rapidly proved itself to be extremely adept at handling its armour in every theatre of the war. The elan and dash of such formations as Gen George S. Patton's Third (US) Army, supported quite magnificently by the US Air Force, cut a swathe through even the most battle-hardened panzers of the enemy. The US Army was so successful that armour ended the war with a major share of credit for the Allied victory, despite the fact that, basically, German tanks were still individually far superior to most Allied models. Thus the tank came to be considered as the main weapon of the land army, the tanks of Gen Patton's army moving further in a shorter length of time than any army had ever done before in history. Here are a few battle accounts of some of the most distinguished American tank soldiers.

GEN C.W. ABRAMS, JR.

The Distinguished Service Cross is the US Army's highest award next to the Medal of Honor. Instituted in 1918, it is awarded to any person who has served with the Army and who has distinguished themselves by extraordinary heroism against an armed enemy. It consists of a bronze cross, over which is the American eagle with wings outspread. Below the eagle and connected to the lower edges of the side arms is a scroll on which are inscribed the words FOR VALOR. The ribbon is blue with narrow white and red stripes at both edges. A bronze oak leaf cluster is awarded and worn on the ribbon by recipients cited for a second time for further acts of gallantry. Creighton Abrams won two Distinguished Service Crosses while commanding the 37th Tank Battalion during the Second World War.

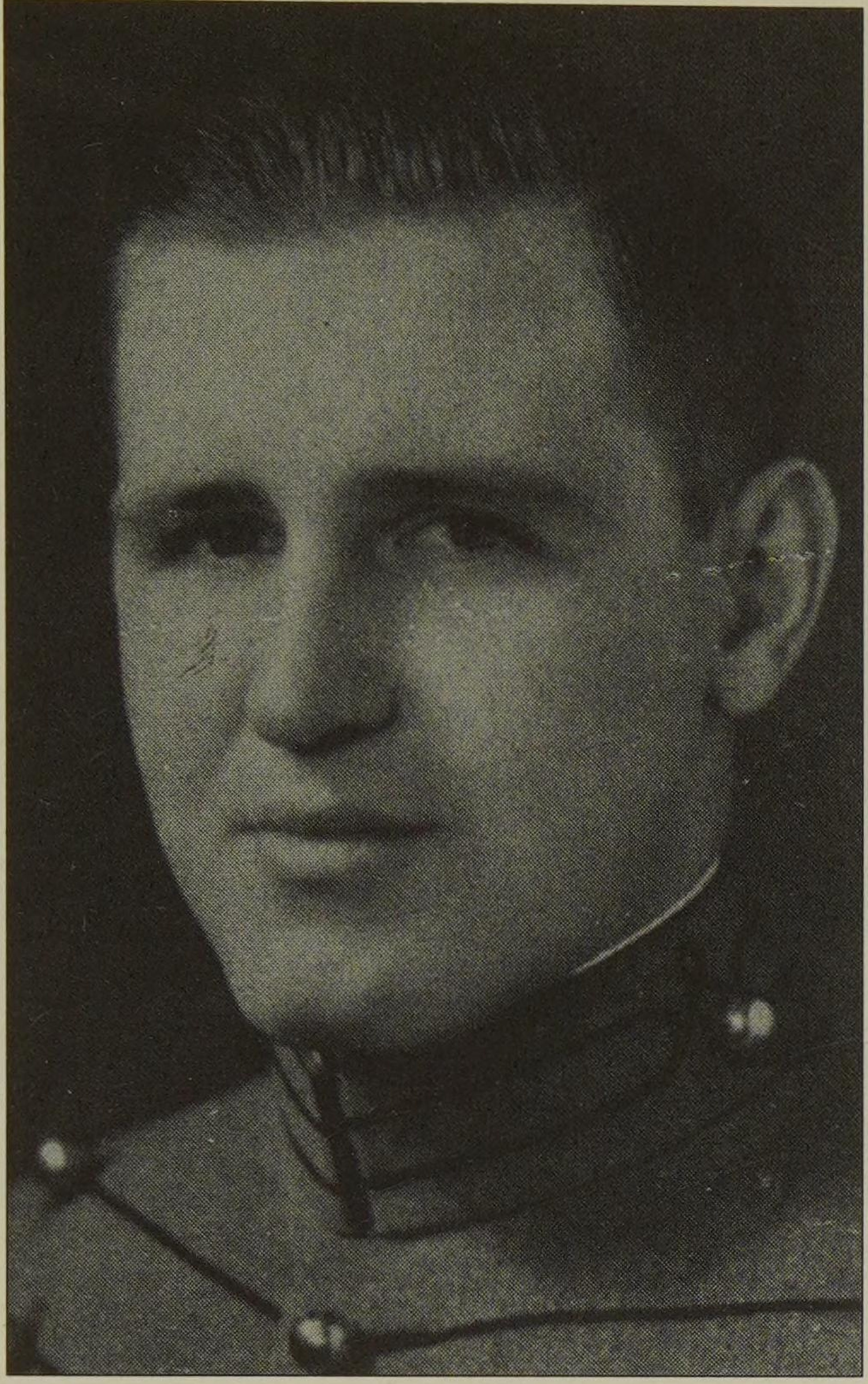
The great Gen George S. Patton, Junior, the Commanding General (CG) of the Third US Army and a living legend in his own time, once said publicly, 'I'm supposed to be the best tank commander in the Army, but I have one peer – Abe Abrams.' Creighton William Abrams was born in Springfield, Massachusetts, on 15 September 1914 and spent his boyhood there, graduating from Agawam High School. Inspired by a talk given at the school by a West Point graduate, he successfully applied for and entered the US Military Academy in 1932. He graduated in 1936, being commissioned as a 2nd lieutenant into the 1st Cavalry Division. The same year as he graduated he also married Julia (Julie) Harvey; they had six children, all three sons becoming Army officers and all three daughters marrying Army officers. Abrams was promoted to 1st lieutenant in June 1939, and to temporary captain in September 1940, before volunteering for a transfer to armour. Like his Army commander George Patton, he was to find his true vocation in command of armoured troops. After serving briefly as a company commander in 1 Armd Div in 1941, he was appointed to command one of the



Gen Creighton Abrams, photographed soon after taking command in Vietnam in May 1968. This was undoubtedly his most difficult appointment. (US Army via Patton Museum)

three tank battalions of 4 Armd Div – the 37th, whom he led into action in Normandy in July 1944 and then on throughout the campaigns in north-west Europe. An American tank expert once told me that in his opinion, the 37th saw the most tank versus tank fighting of any of their armoured units, was probably the highest scoring tank battalion in the US Army during the Second World War, and most importantly, that many 4 Armd Div veterans reckoned that Abrams had knocked out more enemy tanks than anyone else in his battalion! Abrams built up a deserved reputation as being one of the best tank commanders of the war, earning the respect of everyone he served with. He named his first tank *Thunderbolt*, and someone devised a graphic representation of a large white thunderhead pierced by three jagged bolts of red lightning, the main design flanked by two smaller clouds. He used it thereafter on all his tanks. 'Abe's tank doesn't roll ahead like the others,' said his soldiers, 'it gallops, and always a little faster than the others!' Abrams was invariably a quiet, friendly, unassuming man, for whom his soldiers held a deep respect and sincere affection. He certainly had a temper, but usually preferred to speak quietly. He had an abiding love for his soldiers, always striving to help them in every possible way.

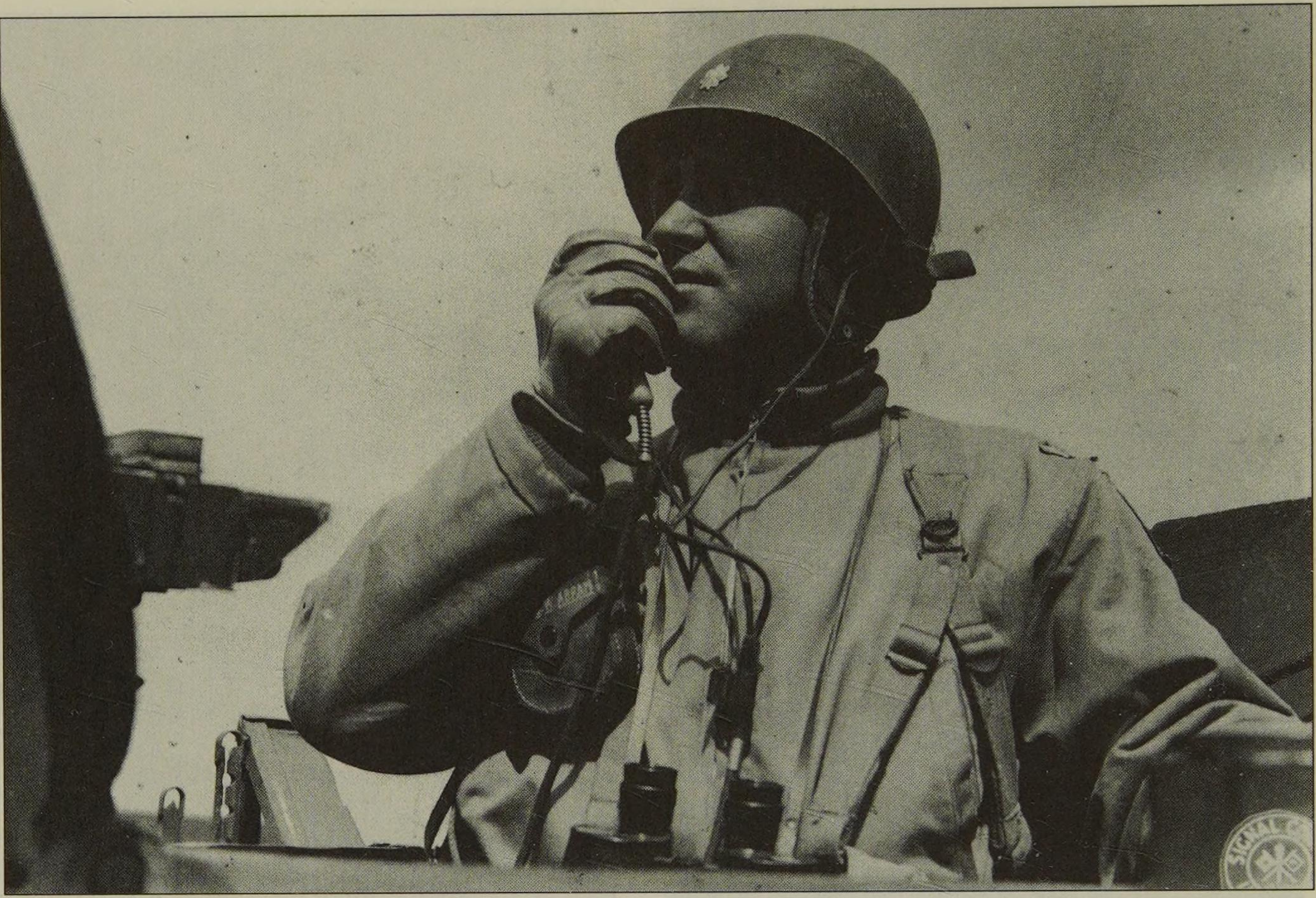
Following on from Operation 'Cobra',[1] it was 4 and 6 Armd Divs which led the Third Army break-out from the Normandy bridgehead at Avranches on 1 August 1944, with 4 Armd striking east while 6 Armd turned west and went for Brest. The eastern thrust became the main offensive aiming at Le Mans, which was captured on 8 August, then turning north to Argentan (13 August) and then east again towards Deux and on to the Seine downstream of Paris, where they established a bridgehead at Mantes-Gassicourt on 19 August. They really were 'galloping across France' with 37 Armd constantly in the forefront of the race. Abrams was first cited for gallantry in action after these initial actions and was awarded the Silver Star, the citation stating that: 'each time resistance was encountered he boldly reconnoitered the situation and in decisive action, with complete disregard for his own personal safety, pushed forward with utmost alacrity. The many times this action was repeated and the prompt results obtained in each instance were directly responsible for the rapid advance deep into enemy territory.' As one of his biographers rightly points out, what Abrams treasured far more than any citation were the many tributes to his courage and leadership written by his men, often years later, when asked what they remembered about him as a young officer in combat. A tank driver, for example, recalled



Left: West Point cadet 'Abe' Abrams during his senior year in 1936. (Patton Museum) *Right*: 2nd Lt Creighton Abrams at Fort Bliss in 1937, where he served with the US 7 Cav while it was still horsed. (Patton Museum)

Abe drawing up alongside his tank, giving orders to the tank commander to engage various targets and then '. . . having a ball, shooting tanks like the rest of the boys. He would mix in wherever the toughest battle was.' Another tank commander remembered that when they stopped for the night, Abrams would then go out and reconnoitre for himself, not sending someone else to do the job, while another said that forty years later he could close his eyes and '. . . see Abe in the turret of his tank, big long cigar in his mouth. He would raise his hand, drop it and say "Roll them!" and off we'd go. Attack! No stopping for anything.' 'Abe was everywhere', recalled Capt John McMahon, commanding the 37th's D Company. 'When the light tanks set off and were soon involved in a firefight with the enemy . . . Abe couldn't hold himself and got into action with his tank. . . . He was always in his tank and ready to fight with it. . . . He did not direct his units from a safe command post. Instead he mixed into the battle and participated like any other tank.'[2]

The tank commanders in Abrams' battalion never closed their hatches. He firmly believed that a commander could not do his job unless he could see what was going on, which in those



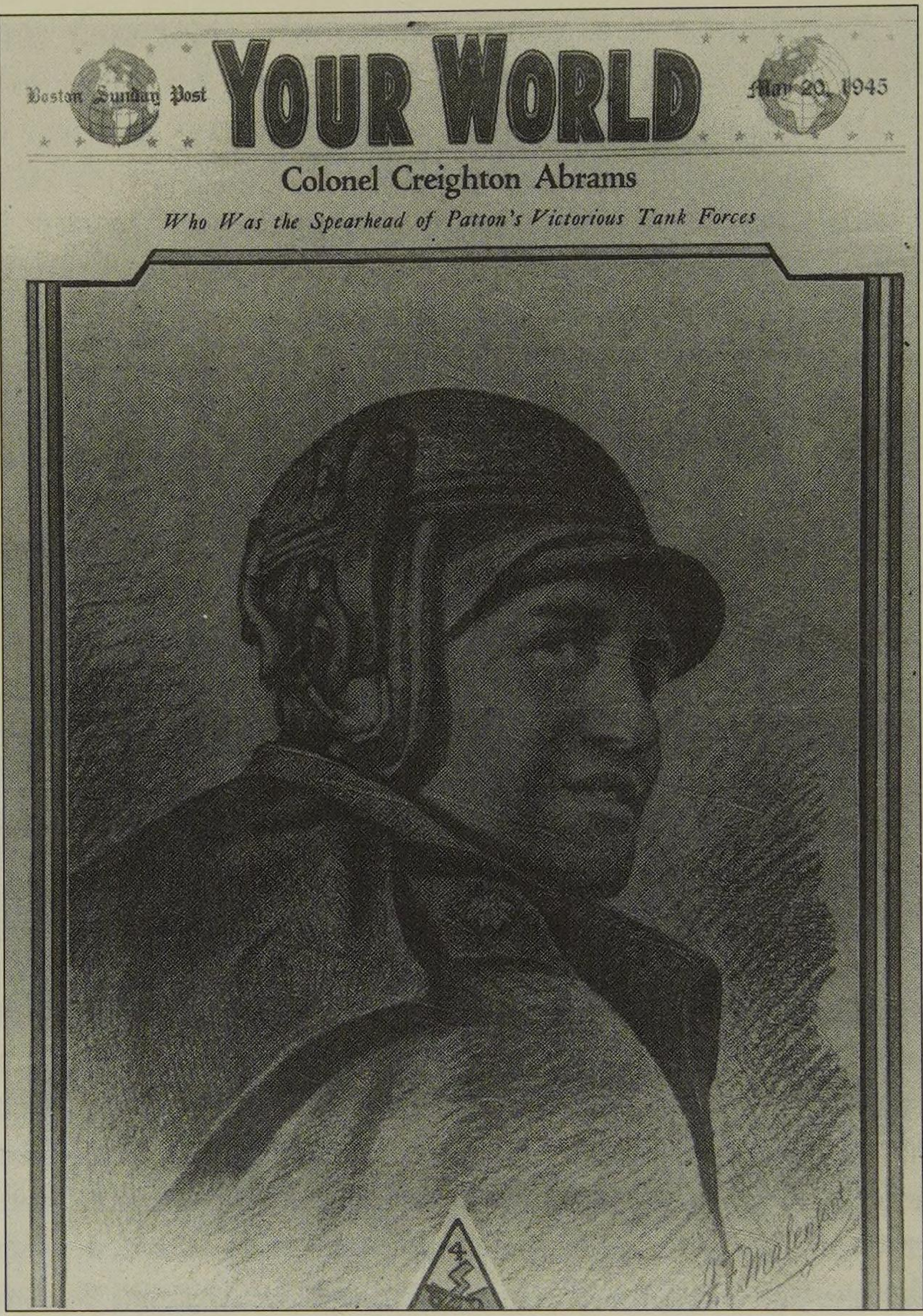
In the turret of his Sherman, Lt Col Abrams issues orders to his tank battalion during their lightning advance across Europe. (Patton Museum)

days without the sophisticated vision devices found in a modern main battle tank (which is *designed* to be fought closed down) meant being up and looking out of the turret. 'No one I ever talked to ever saw Abram's own tank buttoned up,' said one reporter, nor would he let others close their hatches, indeed, in the 37th the hatches 'rusted open'! However, as well as continually showing personal bravery, Abrams was, to quote the then Combat Command (Combat Command A; CCA[3]) Commander, Col Bruce C. Clarke, '. . . a master of deliberate planning and violent execution'. He also appears to have been able to do with little food and barely any sleep, and to exude confidence to all around him. 'This stumpy, cigar-chewing battalion commander appeared on the scene,' recalled one infantry company commander, 'and for some indefinable reason you immediately had a sense of confidence . . . and a sense that there was a leader here, and he proceeded in a very calm, businesslike voice to lay out exactly what we were going to do the next day.'

Soon after crossing the Seine, the corps commander, Gen Manton Eddy, sent Bruce Clarke a message of congratulations saying that his command had been the spearhead of the corps which was leading everyone else. Clarke was invariably leading with Abrams and the 37th, a *Life* magazine reporter commenting in a contemporary article that: 'Where Col Abrams is, that spot is likely to be the farthest point of US armored penetration into Germany.'[4] On 13 September, having raced across the Moselle and overrun the command post of 15th Panzer Grenadier Division at Arracourt, the battalion was involved in what led up to be one of the largest tank battles of the war, with the 37th operating for part of the time behind enemy lines. They lost fourteen Shermans in total, but knocked out fifty-five Panthers and Tigers, driving back a German counter-attack and punching 45 miles into enemy territory. A prisoner taken the next morning told them that only seven tanks in the entire German panzer brigade remained undamaged after the previous day's battle. The fighting around Arracourt raged for four days, with the enemy losing a further seventy-nine tanks and over 600 men killed. When the 37th were pulled back for a breather – they had borne the brunt of the fighting for the past two weeks – their exploits were described by Col Clarke as being '. . . the greatest in the series of operations of the command'. Abrams was to take over CCA from Clarke shortly afterwards, Clarke telling the CG of 4 Armd Div: 'Abrams has my command. Don't move him. If you do, you won't last a month!' Abrams was awarded his first Distinguished Service Cross for the fighting around Arracourt.

Here is how the young Abrams of this period is described by a contemporary: 'chunky build, leather tank helmet, cigar chomped down, tanker jacket – see him, and hear him, as he personally led his columns across Europe. You could wonder at his guts and drive and energy. Or you could receive a field order from him – steady, clear, organised, confident in tone and content . . . he was the embodiment of the professional soldier.' Brig Gen Albin F. Irzyk, who was a fellow tank battalion commander in 4 Armd, had this to say of Abrams when he was chosen to replace Col Bruce C. Clarke as commander of CCA: 'Moving up to take command of CCA was Lt Col Creighton Abrams, CO of the Thirty-Seventh Tank Battalion. "Abe" was the division's senior tank commander and was referred to by some as the hero of the Arracourt tank battles. If CCA was to be given to someone within the division, Abe was certainly the most worthy and deserving.'

Abrams' Combat Command continued to be in the forefront of 4 Armd Div's activities as they pressed on relentlessly across north-west Europe. Then came the totally unexpected German assault in the Ardennes. Abrams and the 37th played a major role in defeating Hitler's 'last fling', namely the relief of the embattled garrison of Bastogne, for which Abe would be awarded a second Distinguished Service Cross. On the morning of 26 December 1944 CCR, which was not normally one of the assault commands, was ordered by 4 Armd Div CG to marry up with CCB, which was then still fighting for Chaumont, in order to make a concerted attack to relieve Bastogne. Col Wendell Blanchard, who led CCR, called together Lt Col Creighton Abrams and Lt Col George L. Jaques of the 53rd Armd Inf. He told them to attack and take the village of Remichampagne, then move on to Clochimont, just 3 miles from Bastogne. From there they were to advance with all speed up the main road, break through the German cordon and make contact with the 101st Airborne. 'I want no stops and all guns firing', Blanchard told them. That morning the sky was clear and, as the tanks lumbered forward over the frozen ground towards their first objective, a flight of P-47 Thunderbolts zoomed in low to strafe the village. The enemy broke and the tanks and infantry sped on towards Clochimont. Once again, the concerted efforts of the ground and air attack blew the enemy to pieces and the armour again rolled forward. By 1500 hrs, Abrams and Jaques were standing on the south slope of a hill outside Clochimont, looking towards Bastogne. Between them and the beleaguered 101st Airborne lay the heavily defended village of Sibret. Abrams' battalion



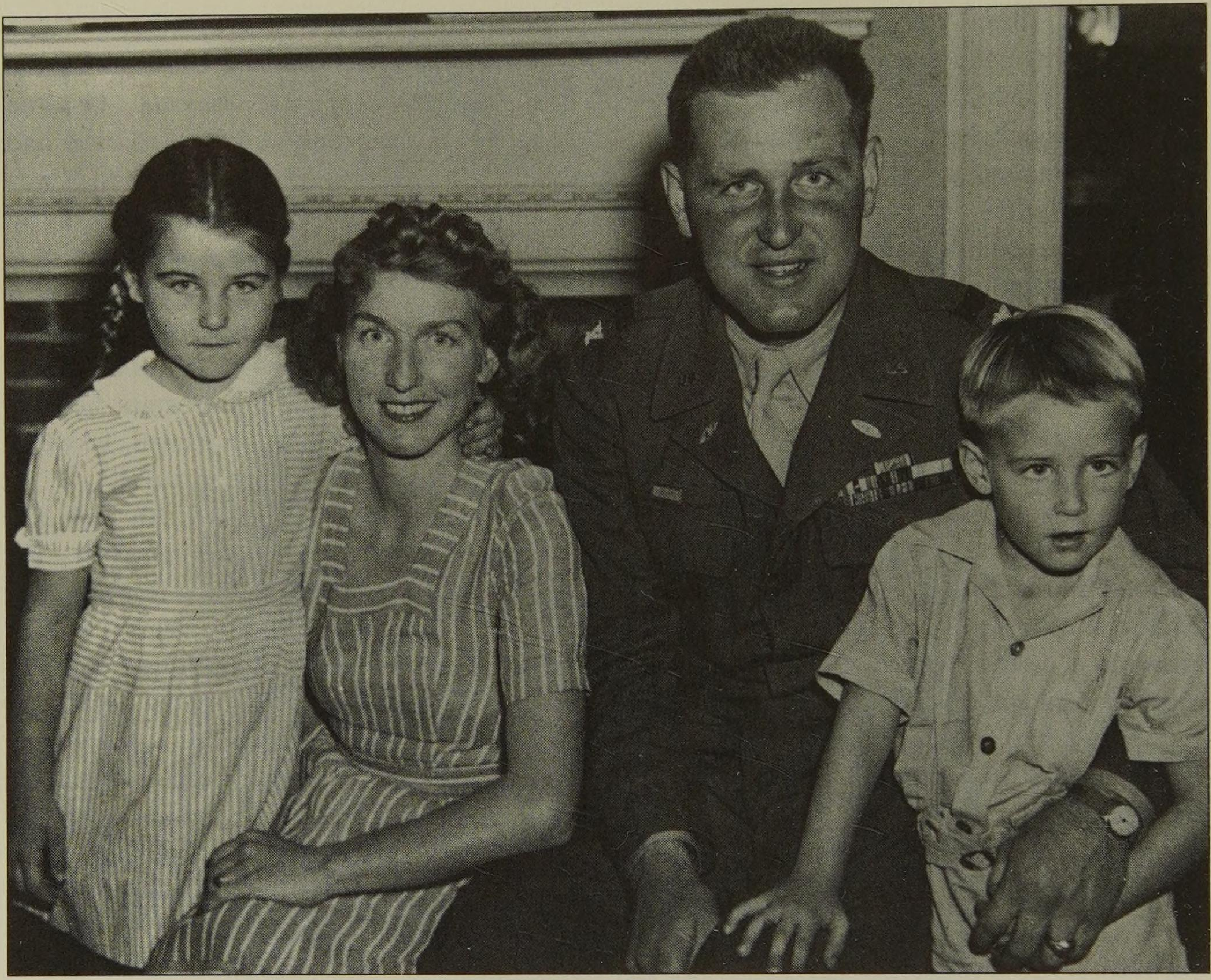
'Abe' Abrams featured on the cover of *Your World* in the *Boston Sunday Post* for 20 May 1945. (Patton Museum)

was down to twenty tanks, while Jaques had lost 230 men in the last three days of fighting. However, they both knew they had to go on if they were to reach Bastogne by last light. As they watched, a flight of C-47 transport aircraft flew in over the besieged town to drop supplies, ignoring the heavy enemy AA fire which burst among them, bringing down at least two of the aircraft in flames. Abrams and Jaques were greatly moved by the sight, remembering that the defenders had been surrounded for ten days by hordes of German troops. 'Clenching the butt of an unlit cigar in his teeth, Abrams turned to Jaques: "This is it, George. We're going into Bastogne!" '[5]

However, as Sibret was so heavily defended, they decided to assault the village of Assenois, which was located on a secondary road but still provided an adequate route to Bastogne. Company C of the 37th and Company C of the 53rd led the assault, while the 94th Field Artillery Battalion gave fire support with their 105s and 155s. The German troops in Assenois fought back fiercely, refusing to give way, but eventually they were hammered into submission by men like Pte James Hendrix, who won a Medal of Honor for single-handedly knocking out a German 88-mm, charging it on foot, shooting one of the gunners with his M1 rifle and clubbing another with the butt – the rest of the crew surrendered! The leading element of CCR comprised three Shermans, followed by a half-track full of infantry, then two more Shermans. The tanks blasted their way through the obstacles, while the armoured infantry mopped up behind them. At one point, when a gap developed between the leading tanks and the other vehicles, a group of Germans ran unseen into the road and laid some Teller mines. The half-track ran over the mines and exploded, but other men of the battle group immediately went forward and cleared the mines, dealt with the enemy and pressed on. Shortly before 1700 hrs, they saw some soldiers in American uniform getting ready to assault a pillbox near the road. The leading tank put two 75-mm rounds into the weapon slit and the Germans inside ran out to surrender. Moving forward, the tank commander (Lt Charles Boggess) called out to the Americans: 'Hey, it's OK! We're from the 4th Armored!' There was no immediate answer then helmeted heads began to appear from nearby foxholes, weapons trained on the tanks – the men of the 326th Airborne Engineers had heard stories of Germans riding around in captured vehicles. After a moment, a lone figure rose from a ditch and came forward, training his carbine on the tank commander. 'It's OK I tell you, we're from the 4th Armored', repeated Boggess. Lowering his carbine the other smiled wearily: 'I'm Lt Duane Webster, 326th Engineers, 101st Airborne – and boy, am I glad to see you!' The siege of Bastogne was over.

Abrams had not merely commanded the operation, but had played his usual 'hands-on' active part in the proceedings, including what was described by one observer as being '. . . the most remarkable hit I saw during the war', when Abrams, having become impatient with a tank company that he had told to deal with an anti-tank gun that was holding up the advance, moved forward and engaged it himself, scoring a direct hit at a considerable range. 'One round, one anti-tank gun in the air by Creighton W. Abrams, Lt Col Cavalry . . . I tell you, it was a sight to behold!' The press made an instant hero of Abrams, but he was not impressed, labelling most of its reports as 'hopeless drivel!'

By the time the war ended, Abrams had been with 4 Armd Div for over four years. He had commanded a tank battalion, then a Combat Command. He had fought throughout the entire campaign without getting a scratch, even though he had 'used up' seven Sherman tanks, all nicknamed *Thunderbolt*. Twice he had been awarded the Distinguished Service Cross, twice the Silver Star, together with a Bronze Star for Valor, the Legion of Merit and battlefield promotion to colonel. Immediately after the war, he served as director of tactics at the Armor School, Fort Knox (1946–8), graduated from the Command and Staff School in 1949, and served as Chief of Staff for the I, X and IX Corps successively during the Korean War (1950–3). He was then promoted to brigadier after passing through the Army War College in 1956, served in a variety of command and staff positions, including commanding 3 Armd Div 1960–2 during the Berlin crisis, then later leading federal troops to quell disturbances over civil rights issues in Mississippi (September 1962 to May 1963), which followed the admission of a negro student to the university. After service as V Corps commander in Germany as a lieutenant general, he was promoted to full general in September 1964 and became Army Vice Chief of Staff in Washington.



Home at last. Col Abrams with his wife, Julia, and children, Noel and Creighton Jr, soon after the end of the war. (Patton Museum)

Next came probably his most testing appointments, first in May 1967 as Deputy Commander US Military Assistance Command Vietnam (MACV), directing operations in northern South Vietnam during the Tet offensive of 1968, specifically ordering the recapture of Hue. Then, in July 1968, he succeeded Gen William Westmoreland as Commander US MACV, remaining in the post, directing the 'Vietnamization' of the war and the disengagement of US forces. He was responsible for some major changes in American military tactics in Vietnam, dispensing with the type of massive sweep operations which had been used by his predecessor, replacing them with large numbers of small patrols and ambushes, as he put it, 'to hound and harass and drive the enemy's influence from the land'. The four years of his command were one of the most difficult tasks ever undertaken by the US military and at all times Gen Abrams endeavoured to lessen the impact of the war upon the peasant population of Vietnam. However, when it became obvious that an American withdrawal was inevitable, he worked to the principle of '. . . doing it right, doing it in an orderly way'. Abrams left

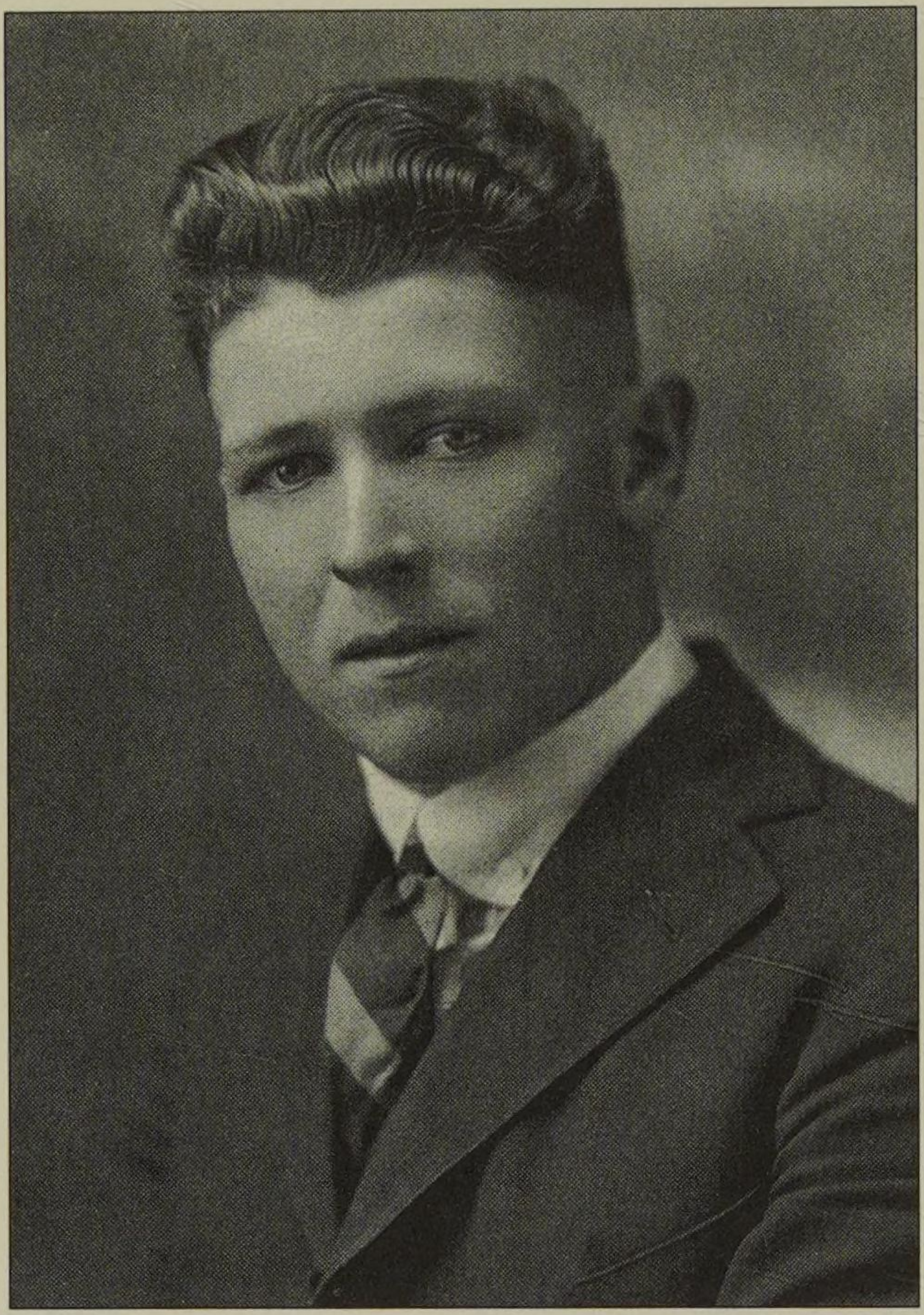
Gen Creighton Abrams, CG V Corps, in Spesbach, Germany, 24 October 1963. (US Army via *Armor* magazine)

Vietnam in June 1972, having been nominated as Chief of Staff of the Army while in Vietnam, and took up his appointment in July 1972. For the next two years he worked extremely hard, trying to rebuild the morale of the Army after all the traumas of Vietnam and the swift reduction of the size of the US forces. He died of lung cancer two years later, on 4 September 1974, and was interred at Arlington National Cemetery on 6 September 1974. The US Army named their current main battle tank after him – a fitting epitaph for a remarkable tanker. In February 1980 his widow, Julie, christened the first tank off the assembly line, which appropriately bore the name *Thunderbolt* on the side of its turret. The Abrams main battle tank, like its namesake, has proved to be tremendously effective on the battlefield.

Virtually unknown outside the USA, 'Abe' Abrams is one of the 'unsung heroes' of American history. A brave, able and inspiring leader, he was rated by many as the outstanding armour commander of his generation and by Gen Bruce C. Clarke, who knew him well, as America's 'Number One Fighting General'.

GEN B.C. CLARKE

Born in 1901, Bruce Cooper Clarke, a big, strapping farm boy from Adams, New York, enlisted in the US Army in 1918, aged



Bruce Cooper Clarke, aged nineteen, while he was serving in the New York National Guard. (Patton Museum)

seventeen, having been told by a recruiting sergeant, 'Son, every day in the Army is like Sunday on the farm!' He initially served as a corporal in the National Guard, then was admitted to West Point, graduating in June 1925, as a 2nd lieutenant in the Corps of Engineers in 1925. The same year he married Bessie Jean Mitchell of Buffalo, New York. They had three sons and one daughter. His initial posting was to Fort Humphreys, before which he obtained a civil engineering degree at Cornell University. In 1932 he became assistant professor of military science and tactics at the University of Tennessee, then, in 1936, he moved to Galveston as assistant district engineer. In 1940, when the Armored Force[6] was born, he became the Force's engineer officer. He was always an eminently practical soldier, as is evidenced by a story told about him during the first manoeuvres in which the new mobile forces took part. Gen Adna Chaffee, the commander of the 7th Mechanized Brigade (the main element of the Armored Force) and soon to be known as the 'Father of the Armored Force', said to him before the manoeuvres began: 'Clarke, you are an engineer. Do you know how to calculate the load bearing capacity of a bridge?'

'Yes Sir!'

'Well, I want you to go to the manoeuver area and make sure all the bridges there will hold my tanks.'

'My approach was simple,' said Clarke later, having taken the precaution of adding six tanks to his engineer unit. 'We drove the tanks over every bridge in the area. If it broke, we rebuilt it. When we had done, I reported to Gen Chaffee that we had calculated the load-carrying capacity of all the bridges and I could assure him they would all carry his tanks.' Chaffee later gave Clarke the credit for enabling his brigade to out-manoeuvre the opposing forces!

When 4 Armd Div was activated in 1941, Clarke was selected to command the 24th Armored Engineer Battalion, the unit being later chosen as the outstanding battalion in the division. Just five weeks later, he was promoted to full colonel and appointed as Chief of Staff of the division. However, when they went overseas in December 1943, Col Bruce Clarke was now the commander of the division's CCA. With battalion commanders like Creighton Abrams, CCA was a superlative command, invariably leading the division (now commanded by Gen 'Tiger Jack' Wood), and during the ensuing few months Clarke would be awarded the Distinguished Service Cross (August 1944), two Silver Stars and two Bronze Stars. Early on in France, he perfected an ideal way of running his Combat Command, leaving his executive officer, Lt Col

Hal Pattison, to man the command post and 'look rearwards' (that is, deal with higher headquarters) while he stayed out of the command post and 'looked to the front'. He did so by always being up with the heads of his leading columns, riding in a special stripped down tank with a dummy wooden gun. The 15-ton tank, stripped down to 10 tons, could really move and, on a number of occasions when he was unhappy with the speed of progress, he travelled far ahead of his leading elements, then radioed back that he had '. . . cleared the road for the next two miles. If you go that far, I'll clear it ahead of you again!' Clarke never had to tell anyone twice!

His aggressive and imaginative leadership soon became an inspiration to all, and was epitomized in the Nancy bridgehead operation over the Moselle River, in which CCA's swift encirclement of Nancy led to such confusion behind enemy lines that they hastily evacuated the city. The corps commander, Gen Manton S. Eddy, later said it was '. . . one of the most efficient and effective operations of XII Corps', likening it to Jeb Stuart's ride around Richmond in the civil war, with the difference being that Clarke's 'ride' had also played a key role in causing the fall of the town. In just two weeks, CCA had: re-established a bridgehead that was in imminent danger of being lost; breached a strong enemy position and penetrated 45 miles behind German lines; destroyed the command installations of the formation charged with the defence of the Nancy sector; blocked the retreat of the German forces driven out of Nancy; engaged in mopping-up operations in a wide area, centered on Arracourt; fought one of the bitterest tank battles of the entire war; and for a period of eight days, fought an aggressive defensive action against superior forces to hold the Arracourt salient of the Nancy bridgehead. A summary of the casualties it inflicted on the enemy during this two-week period was: prisoners 1,884; enemy killed 589; tanks knocked out 107; SP guns destroyed 30; other large calibre guns destroyed 32; other enemy vehicles destroyed 491. CCA had defeated elements of three enemy infantry divisions, one panzer division, two panzer brigades and five separate battalions including AA, engineer, armour and paratroops.

Col Clarke, while CO of CCA, 4 Armd Div, at Pine Camp, New York, 1942. (Patton Museum)

Clarke was a dynamic personality, clearly destined for high command. Here is how Brig Gen Albin F. Irzyk, then a tank battalion commander in 4 Armd Div, remembers him:

'Since the beginning of combat, Colonel Clarke had done an absolutely superb job as a combat commander. He had been aggressive, imaginative and dynamic. His commanders were, likewise, aggressive and courageous. CCA had many truly outstanding accomplishments during its time in combat. But Colonel Clarke

4 Armd heads east. An SP howitzer belonging to B Battery, 22 Armd Field Art Bn, moves through Coutances. (Patton Museum)

was not merely a combat commander. As Chief of Staff of the division for many months, he had been constantly at the elbow of General Wood giving advice and recommendations. The division CG was accustomed to listening to him and perhaps even leaning on him, so even after assuming command of CCA, his influence and power within the division never ebbed. Colonel Clarke was not one to hide his accomplishments under a bushel basket. On the contrary, he was anything but shy about talking, writing and reporting about his achievements. General Dager (CG of CCB), on the other hand, was quiet, unassuming, low-key, avoided publicity, and thus was often overshadowed by the actions and ambitions of his more junior counterpart. The division, consequently and unavoidably, up to this point had a definite CCA tilt.'

However, Bruce Clarke was destined not to remain much longer with CCA. In November 1944 he was promoted to brigadier general and appointed CG of CCB 7 Armd Div in Holland, just in time to take it to Belgium to help counter the totally unexpected major German offensive in the Ardennes. His task was to assist in the defence of an important road and rail centre at St Vith. Thanks to his outstanding leadership the hotchpotch of units in St Vith, which were added to his Combat Command, making a grand total of just 2,500 men, was rapidly welded into a cohesive fighting force which managed to hold off all the initial enemy thrusts, using mobile 'hit and retire' tactics and thus throwing the Germans' carefully worked-out timetable into chaos. The Germans had aimed to capture St Vith by 1800 hrs on 17 December. However, Clarke's classic use of tanks in mobile defence held the town until the night of the 21st, and actually prevented the Germans from being in full control and able to use the road complex properly until the 23rd, when Clarke's forces were withdrawn on orders from higher command. After the war, Gen Hasso von Manteuffel described Clarke's handling of the situation as being one of the best models of this method of fighting that he had ever seen. Indeed, at the time he was convinced that he was facing a corps instead of the handful of units, and told Clarke so when they met in 1964 at St Vith. 'We estimated that we were up against at least a division, perhaps an entire corps', he said. 'We made repeated probing attacks and every time we went into your position, we encountered armour. Our preliminary briefings had told us there was no armour in our path.' Clarke commented:

'As commander of CCB, I analysed the situation and decided that the probable objective of the German attack was not St Vith or a bridgehead over the Salm River, but rather a decisive objective far to my rear, probably toward the English Channel. I could well afford to be forced back slowly, surrendering a few kilometres of terrain at a time to the German forces while preventing the destruction of my command and giving other units to my rear the time to prepare a defence or a counter-attack. Therefore by retiring a kilometre or so a day, I was winning and the Germans, by being prevented from advancing many kilometres a day, were losing; thus proving my concept that an armored force can be just as effectively employed in a defence and delay situation as in the offensive.'[7]

He also said afterwards that the major factors in the successful defence were: a base of direct fire made up of 90-mm tank destroyers and a counter-attack force of a part of a tank battalion concealed near St Vith. The tanks would attack a German thrust and, after reducing it or re-establishing the American defence, would return to their original position and await the next threat. When discussing the battle with von Manteuffel in 1964, it was clear that the German still thought he had been up against far more troops than he had been, as this extract from their 1964 meeting at St Vith (filmed for TV) shows:

Manteuffel: For success we needed surprise. We needed bad weather to keep your air force grounded and we needed speed to get the road net at St Vith and push on through. My timetable called for owning St Vith by 1800 on December 17th.
Clarke: You certainly got the surprise and the bad weather.
Manteuffel: But we ran into your corps at St Vith.
Clarke: Not a corps, General, an armored combat command.
Manteuffel: That's right. I forget. But you had so many tanks.
Clarke: You were seeing the same tanks over and over again, General, in different places. Our mobile reserve.

'Clarke of St Vith', as he came to be called, undoubtedly prevented a link-up between the Fifth and Sixth Panzer Armies and thus wrecked the German timetable and thereby played a significant role in the eventual failure of the German offensive. But the latter's heroic action cost the Americans dear, Clarke's forces losing over two-thirds of their original strength in the five days of fighting.

However, from a tankman's point of view there were many remarkable engagements in the battle, the most remarkable of which must be the knocking-out of a German Tiger tank by a little M8 Greyhound armoured car, belonging to B Troop of the 87th Cavalry. The

M8 had been in a concealed position on the boundary between the 87th and A Co, 87 Armd Inf, when the Tiger approached along a track which ran directly in front of the armoured car's hide. As it passed, the M8 quietly slipped out of its position and began to tail the heavy tank, accelerating in order to catch it up. The engine noise caused the German tank commander to look round and, as soon as he saw the little American armoured car behind him, he began to traverse his turret in order to bring his gun to bear. It was a race between the GIs attempting to close up so that they could effectively fire their little 37-mm gun at the enemy's Achilles' heel – namely their thin rear armour – before the dreaded 88-mm gun of the Tiger could blast to kingdom come these 'fools', who dared to fight a 56-ton tank with their puny little wheeled runabout! Fortunately for the GIs, the Greyhound managed to close to within 25 yd and fired three quick rounds. An eyewitness reported: 'The massive Tiger stopped, shuddered and exploded. Flames burst out of the turret and engine ports. The armored car returned to hiding.'

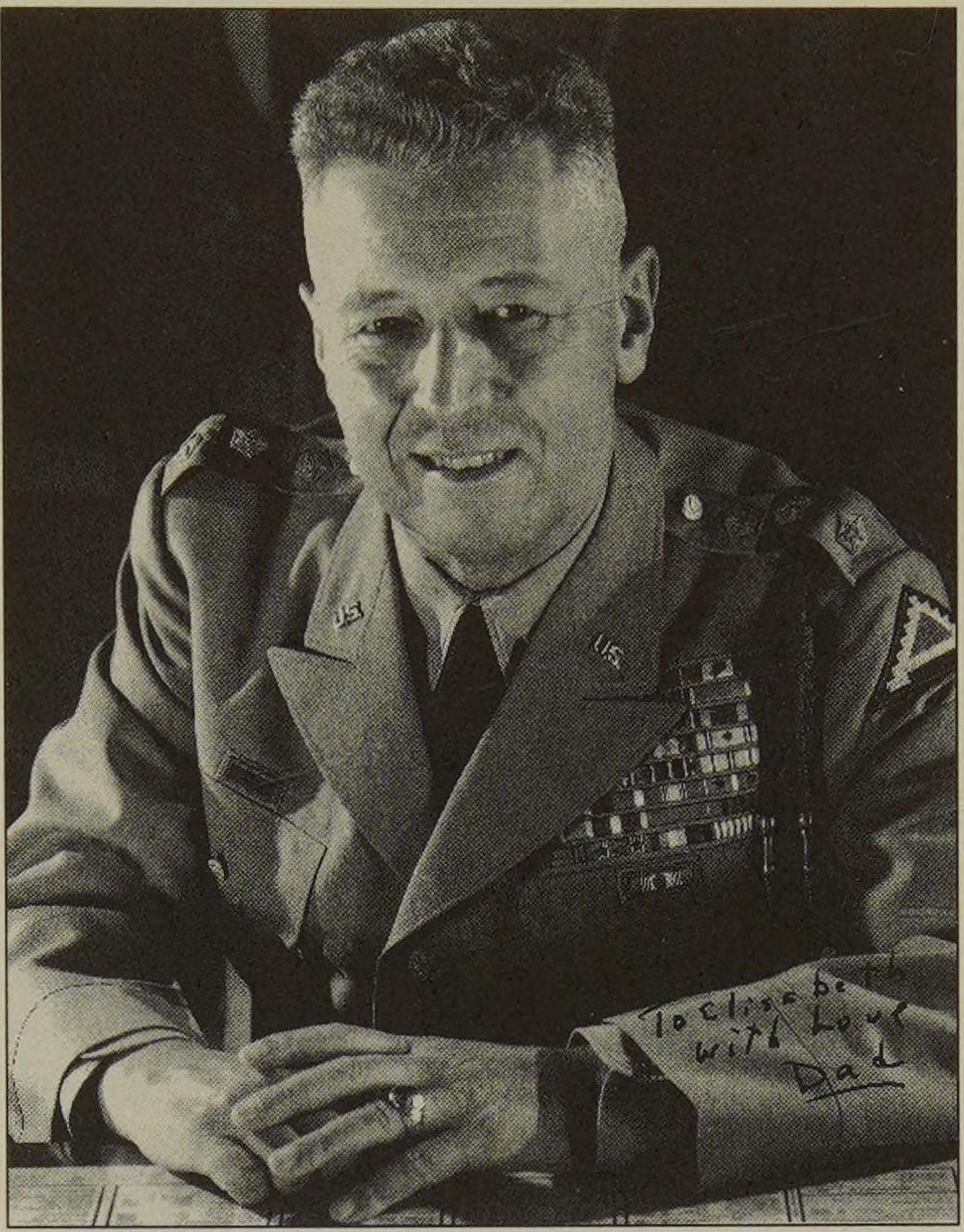
Bruce Clarke's stubborn defence at St Vith was credited by First Army as being a major factor in the failure of Hitler's last major assault in the west, its Operations Report for the period reading:

'Without control of the communications center of St Vith, focal point of five main highways and three rail lines, the enemy's armored, infantry and supply columns were all practically immobilized. The rugged, hilly terrain of the Ardennes, heavily forested, permitted no cross-country movement. The few columns that were able to move, struggled along muddy, cratered, narrow secondary roads. Traffic was jammed bumper to bumper for miles from the original point of departure and provided excellent targets for friendly artillery and fighter bombers. The salient at St Vith not only threatened the whole of Fifth Panzer Army's northern flank, but continued to prevent the movement of Sixth SS Panzer Army. This afforded First US Army sufficient time to bring up reinforcements to a new defense line.'

CCB, 7 Armd Div received a Unit Presidential Citation for its outstanding performance at St Vith.

Immediately postwar, Clarke's appointments included director of the Armored School at Fort Knox, where he reorganized teaching procedures and designed the original tank crew proficiency course; then revised the tank gunnery qualification tables for more realism and a stronger emphasis on combat firing and crew proficiency at Fort Hood. In 1949 he was appointed to command 2nd Constabulary Brigade in Munich. Although he spent time in other theatres – such as Korea and Honolulu – he continually returned to western Europe, holding many key appointments on the way to becoming C-in-C United States Army Europe (USAREUR). These appointments included command of both 4 then 1 Armd Divs, and I and VII Corps during the Korean War. In May 1956 he took over the Seventh US Army in Germany, with the task of turning it from an army of occupation into an ally and 'good neighbour' of West Germany. In 1961 he was appointed C-in-C USAREUR, having to face such traumas as the building of the Berlin Wall and the heightened tensions of the Cold War. He was also the prime instigator of the organization of the modern US armored division and armored cavalry regiment, additionally creating the plan to fully mechanize infantry divisions. He retired in April 1962, aged sixty-one years. However, he continued to work for the Army, being asked repeatedly by the Chief of Staff to carry out surveys and inspections of all kinds. One military historian had this to say about him: 'Bruce Clarke is a complex person who once said to me: "I can't look at something which seems wrong without doing something to make it right." ' Clarke himself said: 'An outstanding commander has two traits: knowing what needs to be done and knowing how to do it.' Those words certainly epitomized Clarke's approach to soldiering. He died on 17 March 1988, aged eighty-six years, of respiratory arrest. Among his decorations were the Distinguished Service Cross, three Distinguished Service Medals, three Silver Stars, the Legion of Merit and three Bronze Stars, one with 'V' device.

He also was awarded the Air Medal – somewhat unique for an army general – which was for his actions on 13–14 September 1944, when he flew in a Piper Cub light aircraft, at very low altitude, during the crossing of the Moselle at Dieulouard, when CCA had become



Lt Gen Bruce Clarke, CG Seventh Army, in Stuttgart, Germany, 19 June 1956. (Patton Museum)

Bruce Clarke with his wife, Bessie, visiting the Berlin Wall, which was built while he was C-in-C USAREUR in 1961. (Patton Museum) very scattered and contact was sporadic. He personally reconnoitred routes of advance and sought out enemy defences, heedless of enemy fire and the dangers inherent in such low flying, continuing his mission until he was satisfied he knew where all the enemy was located, then returning to his own troops, he led them to the enemy positions. His foreign decorations included the Belgian Croix de Guerre with Palm, Belgian Grand Officer Order of the Crown, British Companion of the Order of the Bath, Colombian Meritorious Medal, French Legion d'Honneur and Croix de Guerre with Palm, Korean Presidential Citation, Taeguk Korean Medal with Silver Star, and the Korean Order of Service Merit.

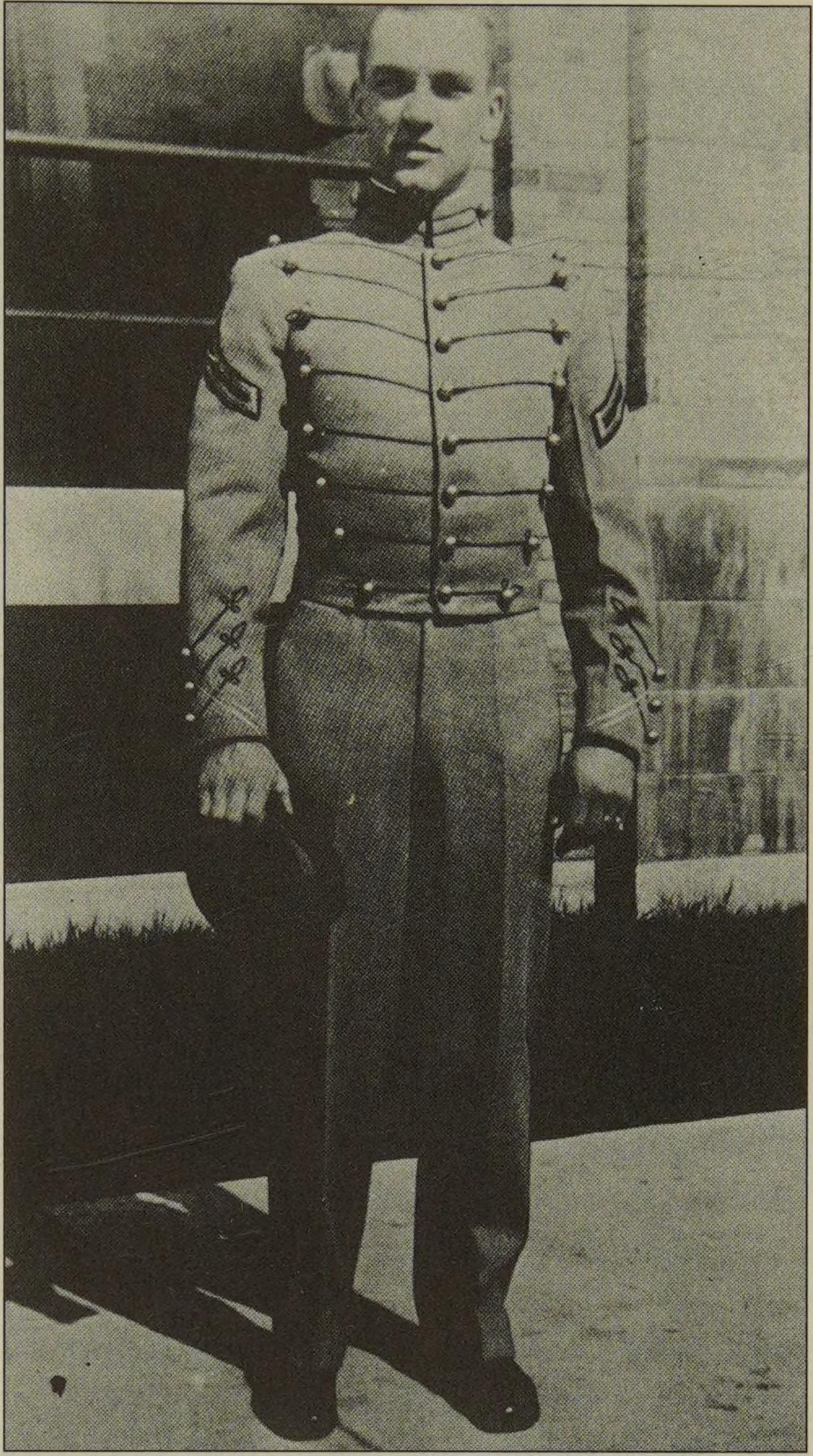
Bruce Clarke had a down-to-earth approach to soldiering and to being a general. For example, when asked by a college cadet what a general's role was in a mobile defensive situation – such as St Vith – he answered simply: 'To prevent the confusion from becoming disorganized!' Unlike 'Abe' Abrams, he was well known outside America, thanks to his sterling work as C-in-C USAREUR; however, the title he probably appreciated more than any other was the one by which he was known within the middle echelons of the US Army, where he was called 'The Sergeants' General'. And as every officer knows, if the sergeants think highly of you, then you must be pretty good!

MAJ GEN J.S. WOOD

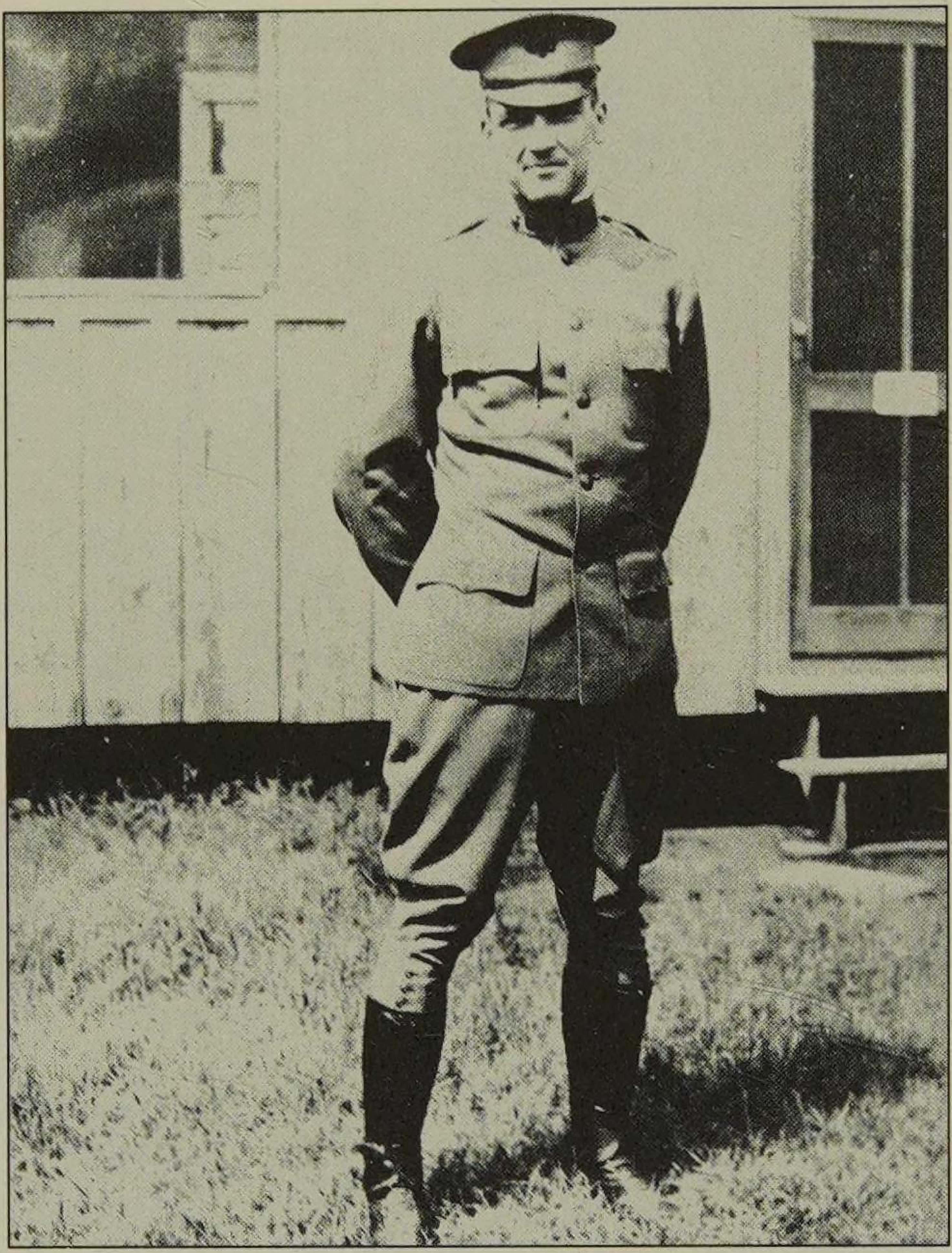
Sir Basil Liddell Hart, British 'guru' of armoured warfare, once called John Shirley Wood 'The Rommel of the American armoured forces'; American writer Nat Frankel, who served in Wood's 4 Armd Div described him as being '. . . the greatest tactician in the European theater and a brilliant strategic thinker as well'. Frankel also explains two of Wood's nicknames. The first, 'Tiger Jack', was not because he roared at the Germans, nor that he pounced on the enemy and dragged them off to his lair, but rather that when his Army Commander, the great Gen George S. Patton, roared at Wood, '. . . it was common knowledge that John Wood paced back and forth and gave it right back to him. And what paces and roars if not a Tiger?' A more intimate nickname given to Wood was the letter 'P', which was West Point jargon for Professor, because while he was at the US Military Academy, he often tutored less gifted classmates. I think these two nicknames reflect both his humanity and his personal bravery – most US Armor officers would have rather faced an entire German panzer division than stand up to GSP! In his introduction to Wood's biography by Hanson W. Baldwin, Gen Jacob L. Devers explains that although Wood was a great soldier, he was also a great human being: '"P" Wood himself trustworthy, placed trust in others; confident that his cause was just, he went forward fearlessly despite known and unknown obstacles; compassionate where others were concerned – in these attitudes lay his invincible strength.' Unfortunately, his love of his fellow man, manifested most strongly in his desire to safeguard the well-being of his soldiers above all else, would eventually prove to be his Achilles' heel.

Born in Monticello, Arkansas, on 11 January 1888, his father was an Arkansas circuit judge who later became the Associate Justice of the Supreme Court of Arkansas for thirty-four years. His family were of Scots-Irish-English stock, best described as being God-fearing, upright people, not worldy wise, but cultivated and sensible. Young John Wood was a big, tough lad; he was also very intelligent. He entered the University of Arkansas at sixteen and graduated with a degree in chemistry three years later in 1907. He then took a job teaching chemistry at university – his monthly salary being just $85 plus food! While at university he had captained the football team in his senior term, and it was his desire to play more football which took him to West Point, and the reputation he had built up on the football field at university that eventually got him in. Having passed the scholastic exams with ease, he was told that he could not enter West Point as he had an eye defect – he was short-sighted. However, once they heard of his football prowess, the problem was quietly forgotten. Older than most other cadets, when he entered West Point in 1908, he is remembered by a classmate as being '. . . a big lovable guy, with marvellous physique, fine mind, great confidence, an extrovert, a swashbuckler'. As I have already mentioned, he earned the nickname 'P' (Professor) for helping less gifted students. And, as his biographer comments, '. . . many future generals owed their careers to him'.

Wood graduated in 1912 and was commissioned into the Coast Artillery Corps, later moving to Ordnance, then to Field Artillery. The army he entered was of course horsed, so he rode and played polo. He also read a great deal in the five languages which he could understand (French, German, Spanish and Russian as well as English). By the winter of 1917, he was a major, went to France with the AEF, and served on the staff of 90 Div at St Mihiel. He saw at first hand the stalemate of trench warfare and how it was broken by the tank. His 'military paths' continually crossed with those of George Patton, and they often '. . . argued long and loud on war, ancient and modern'. After the First World War, he commanded a horse-drawn artillery battalion in North Carolina, but although he adored his command he could see that it was no longer suited to the modern battlefield. He tried to stay at regimental duty, serving with soldiers rather than taking up staff appointments. He also spent almost ten years instructing officer cadets on ROTC duty – five at Culver Military Academy and five at the University of Wisconsin. At the start of the Second World War he was Chief of Staff (Lt Col) Third Army at Atlanta, Georgia, then, in 1941, he was promoted to full colonel and assigned as artillery commander of Gen George Patton's 2 Armd Div. He did not stay there long, being marked for higher command. In June 1941 he became Chief of Staff of the nation's first armoured corps under Maj Gen Charles L. Scott. On 31 October 1941 Wood was promoted to brigadier general and assigned to



Cadet Cpl 'P' Wood while a second classman (sophomore) at West Point, 1912. The 'P' stood for 'Professor' as he tutored so many of his classmates. (Patton Museum)



Maj Wood in France with 3 Inf Div during the First World War. He transferred to Ordnance from Coast Artillery in order to get overseas, but then returned to the artillery postwar. (Patton Museum)

command CCA of 5 Armd Div in California. The following year, on 15 April 1942, 4 Armd Div was activated, and on 21 June 1942 John Wood was promoted to major general and took over the division from his friend Maj Gen Henry Baird, who had first organized the division. It was Gen John Wood who moulded the division into a hard driving armoured force, and then led it into battle and commanded it across France in 1944.

Wood was a good judge of leaders and had some of the best in the US Army under his command – two of our 'tank aces' for example, Creighton Abrams and Bruce Clarke, both of whom rose to five-star general rank, commanded a tank battalion and a combat command respectively in Gen Wood's 4th Armored. Like Patton, Wood was a stickler for high standards in dress and discipline; for example, while the division was training at the Desert Training Center, he had an inviolate rule that the fatigue clothes, which were worn all the time, would be buttoned to the last button at the collar and that the sleeves would be rolled down at all times. He was neither a 'martinet' nor a 'spit and polish' general, but realized, as did Patton, that a smart soldier was invariably an efficient soldier. He was also equally hard on officers, expecting them to lead rather than just order their men into action. Gen Abrams recalled him saying once that it didn't matter how many soldiers you had in your command, you had to remember that each one of them had a mother and a father, some had a wife and children, all of whom wanted their 'soldier' home safe and sound once the war was over, '. . . so you *invest* them carefully . . . attack fast and hard, pound out a win and come out of it with 90% of your people and equipment. Less than that – you are only a brass-buttoned figurehead!'

Wood undoubtedly had a personal bond of loyalty to the men he commanded, and he had the opportunity to show how strongly he felt about them even before the division went overseas. During the Tennessee manoeuvres of October 1942, 4 Armd not only displayed a tendency for doing the unorthodox, which had often won it a particular phase of the exercises, but had at the same time aroused great wrath among the directing staff, in particular Lt Gen Ben Lear, a crusty cavalryman of the 'old school', who went out of his way thereafter to denigrate the professionalism of the NCOs and junior officers of 4 Armd. Matters came to a head when, during a river crossing operation, three 4 Armd tanks fell into 50 ft of water and seven men were drowned. Not only did Wood publicly stand up to Lear after he had made some derogatory remarks about the standard of Wood's young NCOs and junior officers at the exercise de-briefing, he went so far as to leap onto the stage and praise his soldiers for their ability, telling Lear that he did not know what he was talking about, both as to the modern employment of armour and the quality of the younger members of his division, who were after all just learning! Lear was furious and Bruce Clarke, then divisional Chief of Staff, had to rush onto the stage and force himself between them! From then on, 'Tiger Jack' was a great hero among his soldiers and young officers. The incident highlighted Wood's tremendous regard for right and wrong, but also his one major failing. As his biographer commented: 'He had an intense, indeed fierce, sense of loyalty down; he was ready to act as shock absorber for all who served under him. But he had little toleration for rigidity, inflexibility or stupidity and could not condone it, even in his superiors.'

The 4 Armd played a major role in the Third Army break-out from Normandy, spearheading XV Corps, blasting its way through Periers and then being held up at Coutances, where the Panzer Lehr Division blocked its way.

'Wood's tankers began to blow the town apart, but their advance was stopped by a minefield. Suddenly Wood himself appeared at the head of the column. "What's the hold-up?" he demanded of Dager (Brig Gen Holmes E. Dager, commander of CCB, which was leading at the time). "Mine field." Wood knew what to do: set an example for his brave but inexperienced men. A mine field was a deadly trap but his division would get nowhere if it stopped at every mine field. The general took a handful of men and, under covering fire from his tanks, slipped into Coutances, skirting the mine field. Wood got the layout of the mine field from a captured German soldier. Remaining in the town, Wood sent a message back to his tankers, telling them the path through the mines.'[8]

France, 1944: 'Tiger Jack' briefs his Army commander, Gen George S. Patton, Jr, whose Third (US) Army spearheaded the American gallop across France. (Patton Museum)

Like all great armoured commanders 'Tiger Jack' never led from the rear. His flamboyant style was much in common with Patton, despite the fact that he was fifty-six years old when he first led 4 Armd out of the bocage country of Normandy. From then on there were times when he was so far ahead of the rest that it was even difficult for GSP to keep in touch! Wood continued to lead his division in this 'hands-on' manner, right across France, as one historian put it: 'operating like cavalry, his division slashed, side-stepped with speed and surprise. It was confident and cocky and demonstrated a daring, audacious, hard-riding, fast-shooting style.' The authors of such tactics were undoubtedly Patton at the very top and Wood at the helm of his division. Nevertheless,

Gen Wood (centre) conferring with his corps commander, Gen Manton S. Eddy (CG XII Corps; on Gen Wood's right, also with glasses). On the left are Brig Gen Holmes Dager (CO CCB) and Maj Gen Willard S. Paul (CG 26 Inf Div). Near Arracourt, October 1944. (Patton Museum)

such constant operations at the 'sharp end' were bound to take their toll on someone as deeply involved as Wood. By the time the year had almost ended both he and his division were tired and frustrated, especially by what he considered as being unnecessary casualties caused by stupidity 'higher up' – how many other field commanders have been in trouble over, as Wavell once put it, the 'size of the butcher's bill'? Wood's one weakness was of total unswerving loyalty to his men – 'We could do no wrong' is how one of his key officers, Brig Gen Hal C. Pattison, once put it. This led to Wood falling out with his then corps commander Maj Gen Manton S. Eddy (XII Corps commander), himself 'high-tensioned'. Patton wrestled with the problem for a while, but eventually decided that Wood, as the junior, had to go. 'I got "P" sent home on a 60 day detached service', wrote Patton later to his wife, Beatrice. 'He is nearly nuts due to nerves and inability to sleep. I hope I can get him a job in the States. He is too hard to handle.' GSP replaced him with Maj Gen Hugh Gaffey, who had been his Chief of Staff. It was a difficult decision to make, especially as they were close friends, but Patton did not shirk it. Wood went to see Eisenhower on his way home and extracted a promise (which was sadly never honoured) that he could return once he was feeling better. Wood left with words of praise ringing in his ears from all concerned. 'They said they wanted me to get a rest from combat,' Wood wrote about his talks with Patton and Ike, 'and wanted me back as soon as I had got it. I told them they were wrong, that all I wanted was to remain with my division, but that as a soldier I would carry out the orders. I think they were sincere in their expressions of concern. George Patton I loved like a brother and Eisenhower I had liked since my first sight of him. . . . Both were sincere, but I think they knew they were only sugar-coating on a very bitter pill.'

This was the end of Gen Wood's operational career. He had led his division across France, liberating Coutances, Avranches, Rennes, Brittany, Nantes, Orleans, Sens, Troyes, Vitry Francois, Chalons sur Marne, St Dizier and Commercy. He had continued the campaign across the Moselle, north and south of Nancy, then into the Avrancourt area, and had finally taken the division across the Saar. Volatile, impatient, never a 'Yes-Man', perhaps this weakness which had shown itself long ago during the Tennessee manoeuvres, when he had clashed so vehemently with Gen Lear, had 'done for him' in the end, despite all his abilities as a superlative armoured commander. Nevertheless, as Nat Frankel says in his informal history of 4 Armd: 'When history remembers the 4th Armored Division, it remembers John Wood.'

When 'Tiger Jack' retired from the Army in 1946, he took with him the Distinguished Service Cross, the Distinguished Service Medal, Silver Star, Bronze Star with Oakleaf Cluster, Air Medal with Oakleaf, together with the French Legion d'Honneur and the Croix de Guerre with Palm. However, these were merely the tangible proof of his fighting career; far more important to him were the deep feelings which his soldiers had for him as Nat Frankel has explained. Another who saw Wood at work on the battlefield was Brig Gen Albin F. Irzyk, who served throughout the war in 4 Armd Div, from a young officer up to lieutenant colonel tank battalion commander. I have already quoted Big Al's (as he was nicknamed) opinion of both 'Abe' Abrams and Bruce Clarke, so it is of considerable interest to see what he thought about 'Tiger Jack'.

After the war, Gen Irzyk wrote a fascinating short article entitled 'The Mystery of Tiger Jack', in which he attempted to explain why he thought this outstanding armoured commander had been relieved at the height of his prowess. His division was acknowledged as being one of the best armoured divisions in the European Theatre of Operations, while Gen Wood was undoubtedly a dynamic commander. Lt Gen Willis D. Critenberger agreed, saying of him: 'He far exceeded in his leadership qualities any man I have ever known, whilst Gen Jacob L Devers simply said that Wood's men would if asked: ". . . follow him to Hell".' So why did Patton sack him? Irzyk lists the following possible reasons:

a. medical grounds (*vide* what Patton said)
b. tactical mistakes (he had crossed into another Army sector)
c. personality clashes with his corps commander, Gen Eddy (see above)
d. his fiery criticism of the way his division was, in his opinion, misused
e. his pleading with Eddy to allow time for his troops to rest and reorganize.

Convenient medical grounds were the 'official' reason, but: 'BUNK!' says Big Al! 'We knew that he was every bit as tired as we were but not more so. If he were sick, so were we. "This division will attack and attack," Gen Wood had told everyone, "and if the order is given to fall back, that order will not come from me." . . . Within the division we universally rejected the medical version.' As far

'Always at the front!' Maj Gen John S. Wood in his M8 Greyhound armoured car, near Avranches, July 1944. (Patton Museum) as crossing into the US Seventh Army sector was concerned, that was an action for which he would not have been sacked, even though he later wrote that '. . . such lines meant little to me and I went where the going was good'. However, in this particular case he had received permission to cross the boundary and by doing so, destroyed a major portion of the Panzer Lehr Division – hardly a good reason for sacking him! His personality clashes with Eddy were well known, as Irzyk says: 'It was inevitable that Wood and Eddy would lock horns. Unquestionably, Eddy wanted to keep pushing (undoubtedly pressed by Patton) and could not help but be irritated and annoyed at Wood's pleas on behalf of his troops. He probably interpreted this as a sign of Wood's developing softness, because of the pressures of the campaign. To Eddy, Wood's insistence may also have spelt taut nerves.' As far as his pleading was concerned, he had a valid point. The continuous fighting had seriously reduced the number of tanks fit for battle, with heavy crew losses, in particular among the experienced officers. The men were exhausted. However, Wood interceded on their behalf without any luck, as Gen Irzyk points out; the tremendous irony was that just five days after Wood was relieved from his command, the division was given a respite, being relieved in the Maginot Line area by the new and fresh 12 Armd Div – no wonder Maj Gen Hugh Gaffey had such immediate success, being able to carry out a forced march of 151 miles to relieve Bastogne, a triumph which would have been impossible for 4 Armd Div to achieve had it not first had the chance to rest, reorganize and refit. Gen Irzyk comes to the conclusion that Gen Wood was relieved because '. . . he was just being General Wood'. His actions bore an uncanny similarity to the way in which he had stood up against criticism of his men during the Tennessee manoeuvres, and 'he once again "stood up" to his superiors, was critical of their tactics, pleaded for a respite for his exhausted men and vehicles, and finally did in late 1944 what he came within a hair of doing in 1942 – he committed career suicide'. It clearly need not have happened had Wood been more of a 'Yes-Man'. If he had kept his head down and not spoken out, Gen Irzyk considers that Wood undoubtedly would have not only continued to command his division, but also '. . . could possibly have finished the war as a corps commander with a third star (if he could have torn himself away from his division). But if he had done all of that, he just would not have been 'P' Wood.'

Maj Gen John Shirley 'P' Wood, legendary commander of 4 Armd, who declined to adopt a nickname for his division saying instead that it would be known by its deeds alone, which gave rise to it being called the 'Name Enough Division'. (Patton Museum)

After the war, Gen Wood worked with a government organization for refugees in Austria until 1951, then joined the UN Korean Reconstruction Agency and later, in

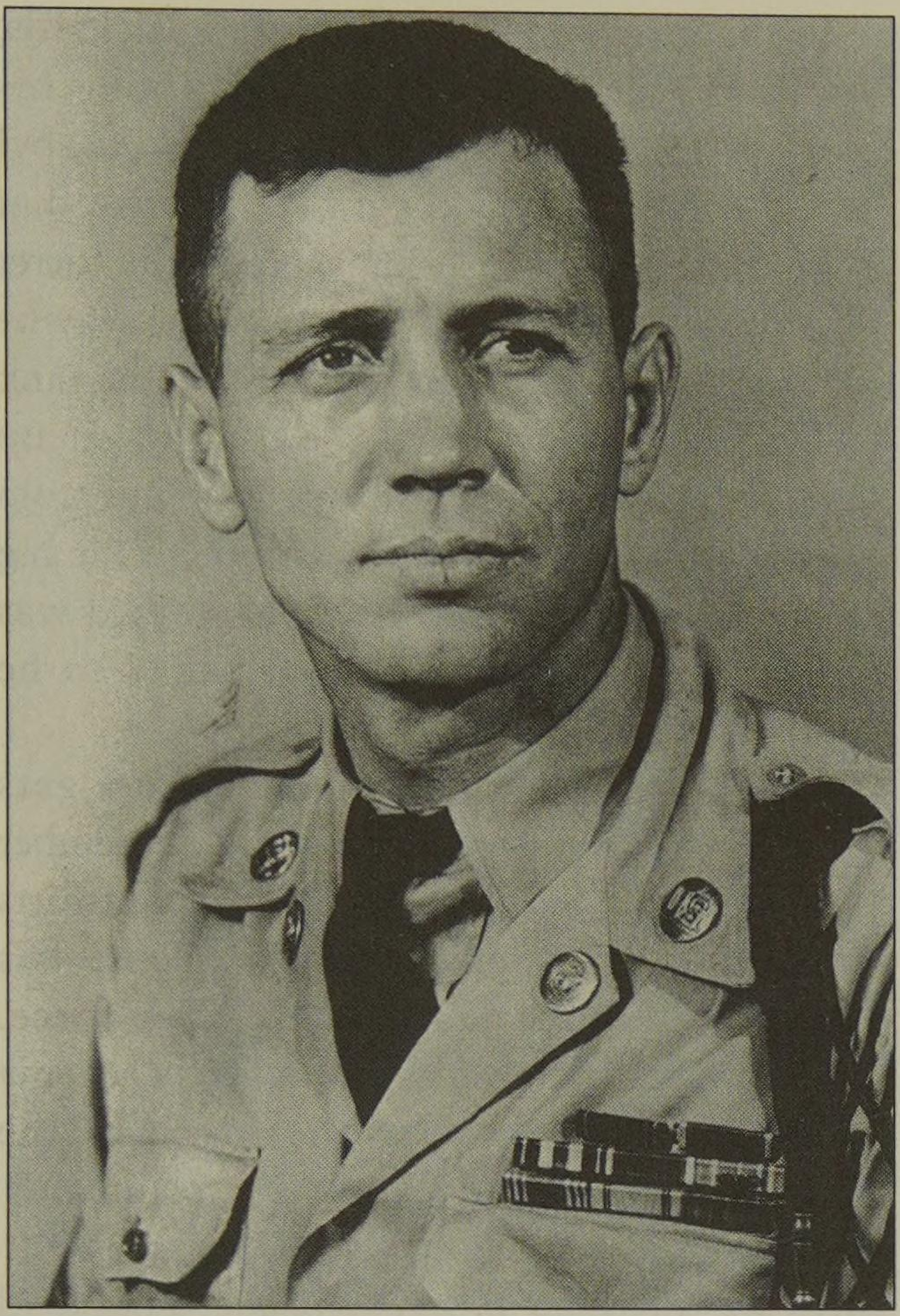
1953, was the IRO representative with the UN in Geneva. He retired to Reno, Nevada, and died there on 2 July 1966, aged seventy-eight. He was buried in the West Point Military Academy cemetery. He ended his own 'autobituary' with the words: 'His friendships and loyaties were deep and abiding and he could not understand or condone disloyalty.' Undoubtedly that epitomizes 'Tiger Jack' and his philosophy for living. As Gen Bruce C. Clarke put it: 'The Gods of War did not smile on "P" Wood. . . . Under different circumstances, "P" had the brains, the knowledge, the drive, the magnetic hold on his men to have been listed on the rolls of the "Great Captains" of history.' However, let Brig Gen Albin F. Irzyk have the last word: 'It is now more than 40 years since WWII. Yet in my eyes, MG John S. Wood remains a genuine, authentic hero. I have long admired him. I consider him the finest soldier, the greatest leader I have ever known. I shall never forget him for what he was and for what he stood for. For me, his greatness grows, as my years recede.'

CWO 2 L.G. POOL

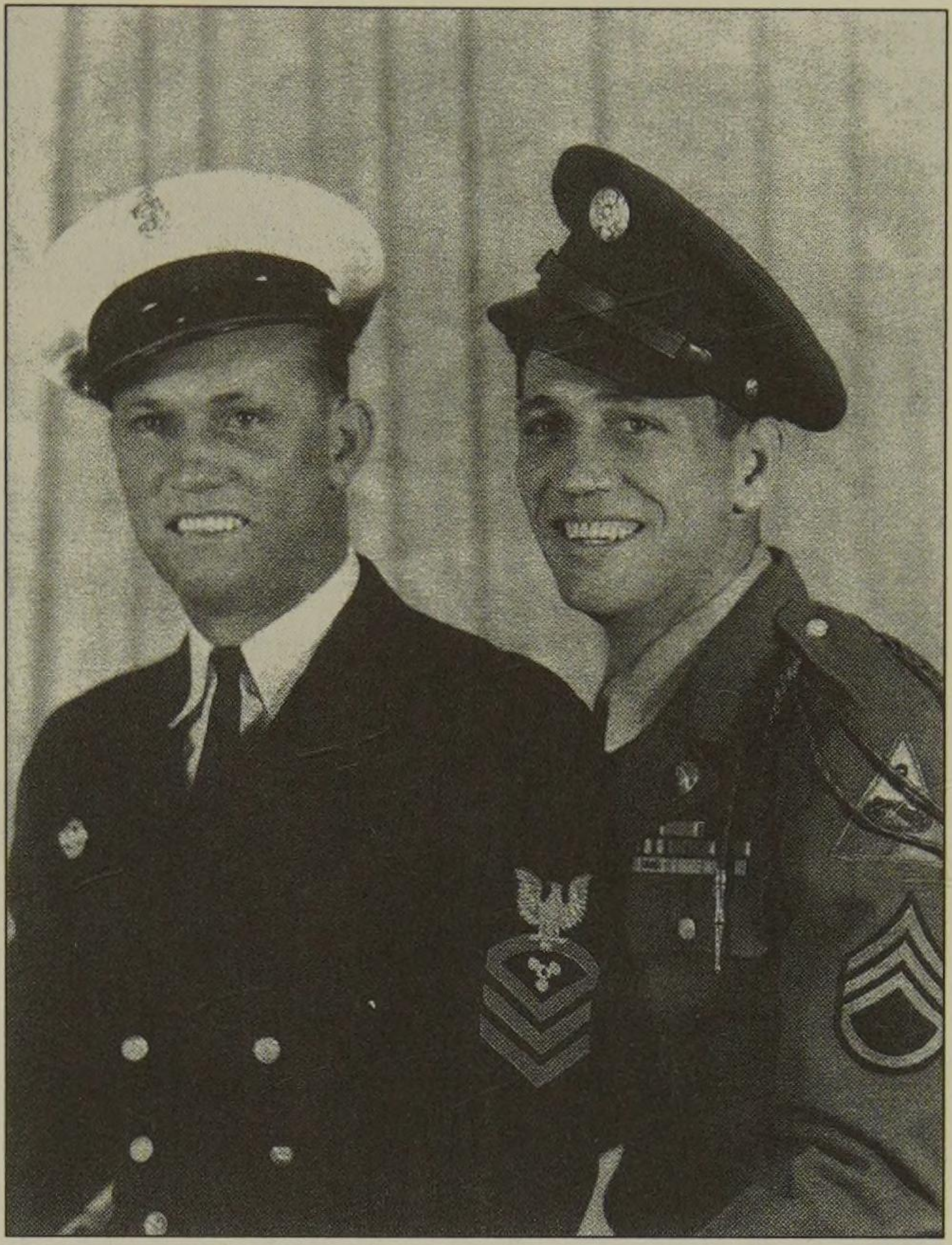
Born in the small community of Odem, Texas, on 23 July 1919, five minutes after his twin brother, John, Lafayette Pool attended school in the area, graduating from Taft High School in 1937. He and his twin then both tried to enlist in the Navy, but while John was accepted, Lafe was rejected because he had damaged his left eye (he had been making a saddle for his dog from an old inner-tube, using a rusty old pair of scissors, his hand had slipped and he had rammed the points into the iris of his left eye). Disappointed, he entered an all boys Catholic prep school in Corpus Christi, graduating from there in 1938. He then enrolled in A & I College in Kinsville, Texas, where he was learning to become an engineer. He worked on his father's farm and boxed to help pay for his education. However, when the draft began he volunteered for Army service and was accepted, going to Fort Sam Houston in June 1941 for his physical, which he passed despite the damaged eye, and being sent on to Dodd Field in San Antonio for 'bootcamp'. He then went to Camp Beauregard for a few days before joining the 40th Armored Regiment at Camp Polk, Louisiana. However, he was later posted to 32 Armd Regt and put into Company I, where he remained until he was wounded.

Pool was next sent to the advanced mechanics school at the Armor Centre, Fort Knox, where he finished one of the top five in his class. When he had completed his courses he returned to Camp Polk and was offered a chance to try for a commission, but he declined. Pool was by now quite a colourful character, lanky, well over 6 ft tall, with a bent nose – a legacy of the days when he boxed on the Army team, was a Golden Gloves champion, and once fought against the legendary heavyweight Joe Louis. Joe had been putting on an exhibition bout for the troops in England, but no one wanted to get into the ring with him, until Lafe said he would. He commented afterwards that Joe Louis had 'turned him every which way but loose', teaching him a good lesson in boxing in the process! From the UK, 32 Armd Regt moved across the Channel, landing in Normandy soon after D-Day.

One of Lafe's foibles was the shunning of combat footwear in favour of cowboy boots, which he wore for the entire time he was in his tank! Having begun his service as an armoured tank mechanic, he worked his way through the ranks to become not just a fully-fledged tanker, but also the highest scoring tank commander in the US Army, credited, together with his gunner Cpl Willis Oller and the rest of his crew, with having destroyed a staggering 258 enemy armoured vehicles during the fighting in north-west Europe. His 'kills' included Panther heavy



Ace US Armor tanker SFC Lafayette G. Pool served in 3 Armd Div throughout his active service during the Second World War. This photograph was taken at Fort Knox in 1949. (Patton Museum)



'Lafe' Pool with his twin brother, John Thomas, who was nicknamed 'Shorty' – 'Lafe' was called 'Big Boy' by his family. 'Shorty' went into the US Navy. The photograph was taken at Corpus Christi, Texas, in 1945. (Patton Museum)

tanks, PzKpfw IIIs and IVs, SturmGeschutz (StuG) assault guns, tank destroyers, anti-tank guns (including at least one 88-mm), and various half-tracked APCs. He also personally took 250 prisoners and killed more than 1,000 enemy soldiers, while leading his task force in no fewer than twenty-one major attacks. The first day of the first battle he was in, he had his Sherman M4 medium tank, nicknamed *In the Mood*, shot out from under him by a bazooka, so he immediately got into another Sherman, named it *In the Mood II*, and went straight back into combat. *In the Mood II* bought it when it was bombed at Fromentel, so he and his crew moved on to *In the Mood III*. His original crew stayed together with him throughout the rest of the operations – Richards and Close were the driver and co-driver (Close also operated the bow machine-gun), Cpl Willis Oller from Morrisonville, Illinois, was gunner, and T/5 Del Boggs of Lancaster, Ohio, was the loader. Over the next eighty-three days of battling across Europe, Pool invariably led his tank company in 3 Bn, 32 Armd Regt, always in the same tank and with the same crew. One of Pool's crewmen told Sgt Frank Woolner, a reporter with *Yank* magazine: 'The guys used to draw straws to see who'd lead the spearhead. Pool would have none of that. He'd just say, "Ah'm leading this time", in his old Texas drawl, and stand there grinning while we cussed him out. But we'd go along just the same. By God, I think we were more scared of Pool than of the Germans!'

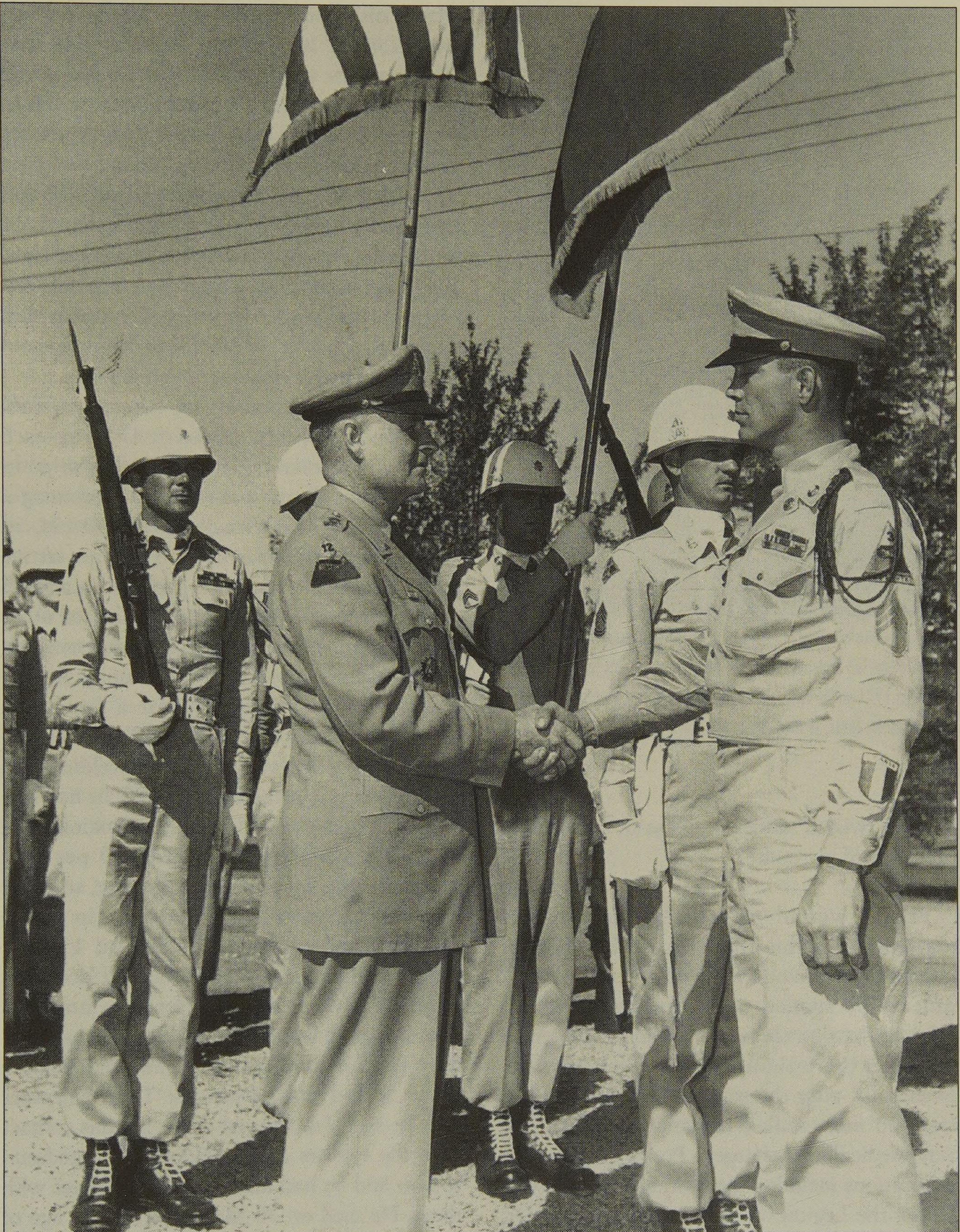
At Colombier in France, while leading the company at night, he destroyed a Panther at a range of 40 yd. The Panther had fired twice and missed. Pool's first round at point-blank range almost tore the turret off the heavy German tank. His gunner, Cpl Oller, was reputed to have seen all the countryside from Normandy, through France, Belgium and on into Germany, only through the sights of his gun. Fortunately, he was always quick and alert, as he was on the night they drove deep into German lines near Origny in France. It was quite dark when the order came to halt and close up to leaguer for the night. Pool opened his mouth to say 'Baby, Halt!' to Richards (he always called his driver 'Baby'!), when he found himself looking straight down the ugly barrel of an 88-mm anti-tank gun, staring out of the gloom ahead. Instead, he said 'Gunner fire!' and Oller, eye pressed to the sight as usual, squarely holed the enemy weapon before its crew could realize that they had an American tank at close quarters!

At Namur, Belgium, during one twenty-four hour period, the regiment's 'bag' was sixteen enemy armoured vehicles. Again at Dison in Belgium, as the column neared Liege, Pool was acting as platoon commander. He decided to use one tank (his own) to clean out an annoying pocket of enemy located on the left flank of their main route. After finding and destroying six armoured infantry vehicles, he learned over the air that a Panther was engaging the front of the column on the main route. Upon arriving on the scene, he quickly located the enemy tank, gave a single estimation of range to Oller, who fired an AP round at a range of 1,500 yd, destroying the enemy AFV. Pool then calmly took up his normal position at the head of the column!

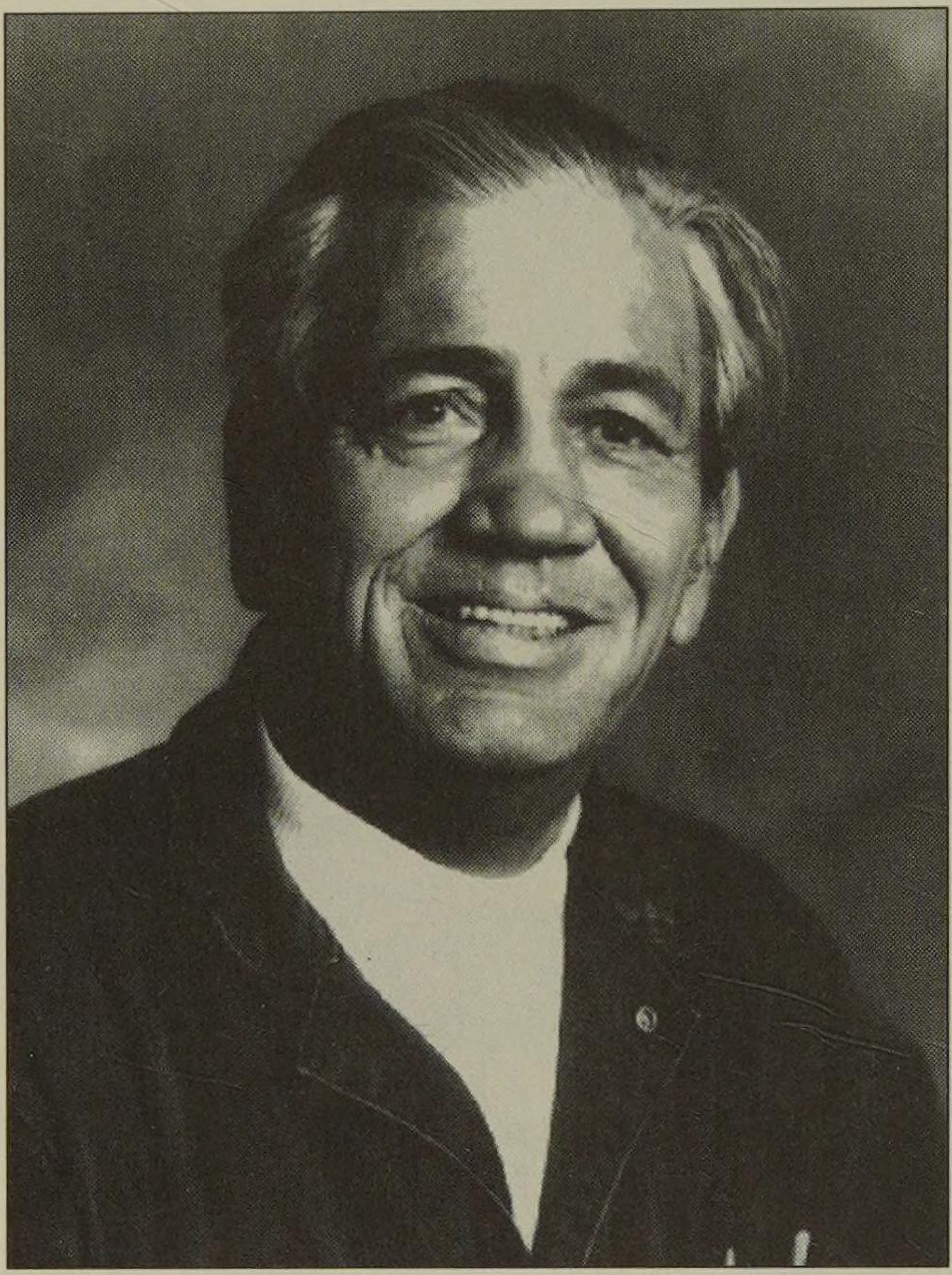
In the article in *Yank* magazine, Richards, Pool's driver, had this to say about his commander: 'Know what he called me? Baby! Imagine that! But he knew I could drive that old tank. He used to sit up there in the turret – you could tell Pool anywhere by the way he sat there, more out than in! He rode the tank like a Texas bronc. Well, he used to sit up there and give us orders through the intercom phone just as cool and calm as though the big show was a manoeuvre. All Pool wanted was to get out ahead of the other tanks so he could kill more Jerries.'

However, even the best of tankers gets caught off guard eventually. On 9 September 1944, near the Siegfried Line on the outskirts of Aachen, Pool's tank was hit while he was working as flank guard to the task force. Watchers, including his CO, saw the enemy tracer hit squarely onto the turret of the Sherman. As Sgt Frank Woolner explained:

'The big Sherman faltered. Inside, Pool said calmly "Back up, Baby". And, as Richards backed the tank slowly, a second shell hit them well forward. To Close, Oller, Boggs and Richards, there was only the space-filling, bell-sound of the hit, the acid stench of powder and the shower of sparks. They didn't know that Pool had been thrown clear, his leg bleeding profusely from a splinter wound. Richards continued to back the tank, carrying out the last order from the Sergeant. Col Richardson saw "In the Mood" slowly reach a cut bank, tilt and with the agonising slowness of a nightmare, topple almost upside down. At that moment Oller felt the hot blood on his legs and knew he had been wounded. Richards, Boggs and Close were unhurt. All four men crawled out of their tank. Medical aid men had already reached Pool, now two of them came forward to attend to Oller. Pool cursed the Germans bitterly as the aid men bandaged his wound. As they placed him on a



Pool is greeted by Gen Roderick R. Allen of 12 Armd Div, plus an Honor Guard, at Fort Knox, Kentucky, on 19 September 1949. The parade was to celebrate his return to the Service after he had partly recovered from his wounds and then been medically discharged in June 1946. It was exactly five years since he had been knocked out of his tank while leading 3 Armd in Germany. (Patton Museum)



WO Pool eventually retired from the Army on 20 September 1960 and went to work at the Taft High School, where this photograph was taken in 1969. He died in 1991 and is buried at the National Cemetery, Fort Sam Houston, in San Antonio, Texas. (Patton Museum)

litter he twisted suddenly and said: "somebody take care of my tank".'

Pool's wound eventually led to the amputation of his right leg, so his days of combat were over. However, the Army was quickly persuaded to retain him on active duty, his battle experience would be extremely useful in the training of tank commanders. Eventually, after the war, in 1946, when there were no more tank commanders to train, he was medically discharged. Pool's awards and decorations included the Distinguished Service Cross, the Legion of Merit, the Purple Heart, the French Croix de Guerre with Bronze Star and from the Belgians, the Fourragere with rope. Twice he was recommended for the Medal of Honor, once for the Silver Star and twice for the Bronze Star. He was also later admitted to the Honorable Order of St George, presented by the United States Armor Society, as a Distinguished Knight, being awarded the Silver St George Medal.

Lafe Pool had married his childhood sweetheart, Evelyn Wright, during a short leave on 7 December 1942. They had a total of eight children, one of whom, Capt Jerry L. Pool, was reported missing in action in Cambodia, but declared dead in 1978. He was in Special Forces and had earned his Green Beret.

Despite having had his leg amputated, Pool was called back into service in 1948 to teach mechanics instructors. He also applied to go to the WO school and was accepted, becoming a Chief Warrant Officer 2 (CWO 2) in Ordnance. He eventually retired from active duty in 1960. He became a preacher in a small community in Texas, then moved on to other churches in the vicinity, preaching and working for the young people of the community. At Taft he stopped preaching and for a few years started teaching in the CVAE (Veterans) Programme – his subjects being welding and small motor maintenance. By 1975, he had had several operations and now his remaining leg was almost useless. Declared 100 per cent unemployable, he gave up everything, sold out and moved up to the hill country in Camp Wood, Texas, where he lived until 1986 in virtual seclusion. However, he had not been forgotten and one day the telephone rang – 32 Armd Regt at Fort Hood had located him and wanted him to visit. When he hung up the phone he had tears in his eyes: 'They remember me', he said. For the rest of his life this contact with the soldiers at Fort Hood was a godsend to him and he had many wonderful times with them. He died on 30 May 1991, at the age of seventy-one. In view of his distinguished record, Room 9312 at Fort Knox, which is one of the tank driver training simulators, was renamed Pool Hall in July 1993. When he was wounded in 1944, his CO, Lt Col Walter B. Richardson, had said, 'Pool is the tanker of tankers, he can never be replaced in this Regiment'. When Pool Hall was dedicated, the secretary for the Armor Cavalry Committee said of him: 'There weren't many men like him. He wasn't afraid of anything. He wasn't stupid or a sacrificial lamb. He just had a knack of being in the right place at the right time, and that resulted in an extraordinary battle record. He was a real hero.'

NOTES

1. Operation 'Cobra' was the code name given to the initial Allied breaking of the German defences around the Normandy bridgehead, which began on 25 July 1944.
2. As quoted in *Thunderbolt* by Lewis Sorley.
3. When the armored brigade organization disappeared in March 1942, all armored divisions had in the place of the two brigade HQs, three Combat Commands – known as A, B and R. CCA and CCB were used to command a mix of tank battalions and armored infantry battalions, while CCR was normally in charge of divisional reserves.
4. As quoted in Sorley, *Thunderbolt*; taken from an article in *Life* magazine by Will Lang, entitled 'Colonel Abe', dated 23 April 1945.
5. As quoted in *Tank Command* by Milton J. Shapiro.
6. Created by War Department Order of 10 July 1940. The Armored Force School and Replacement Training Center (now the Armor School) was created on 25 October, ending once and for all the infantry stranglehold on American armour.
7. Gen Bruce C. Clarke, 'The Battle for St Vith' in *Armor* magazine, Nov–Dec 1974.
8. Shapiro, *Tank Command*.

THREE BRITISH HEROES AND A COMMONWEALTH TANK ACE

THREE BRITISH HEROES

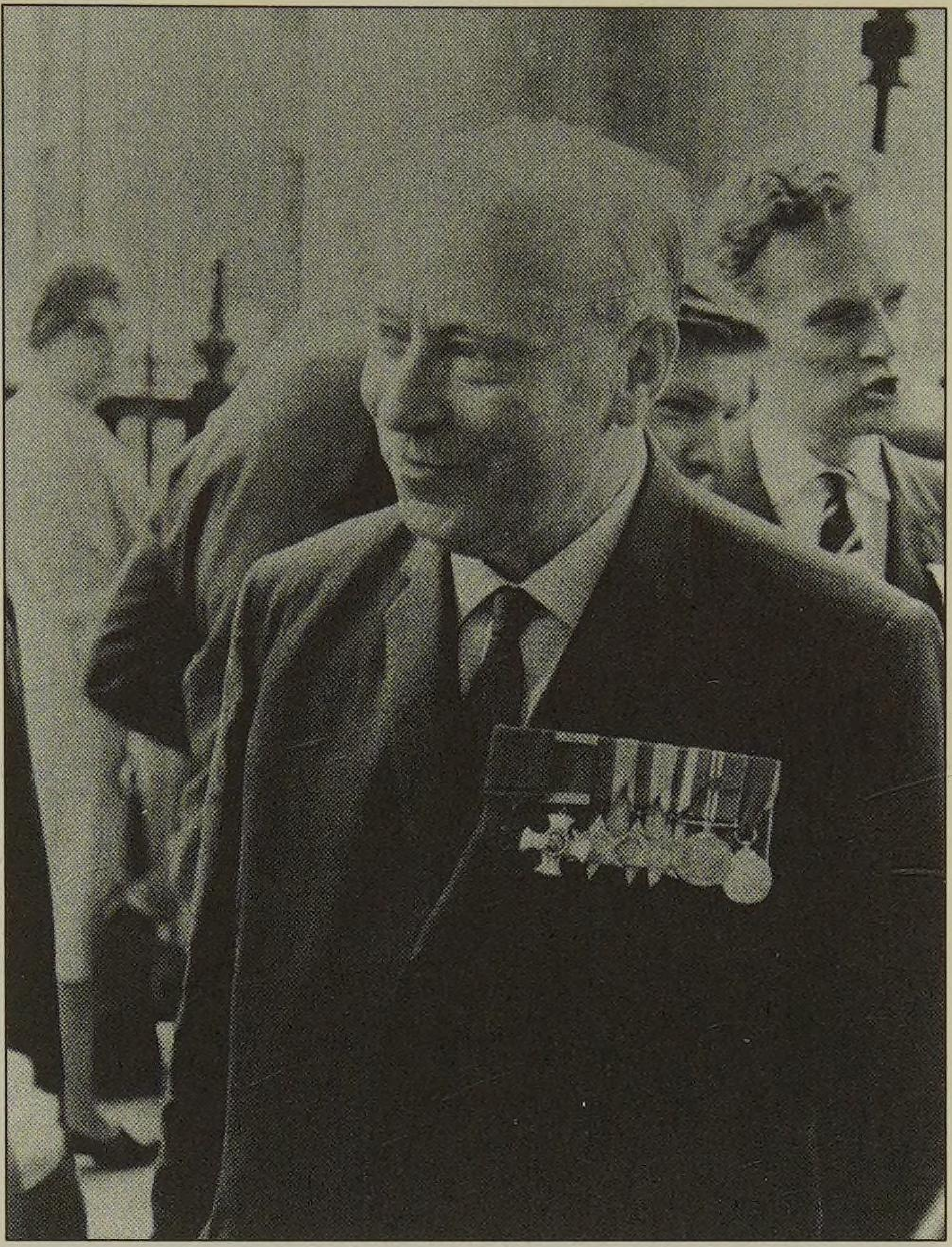
The highly professional tank soldiers of the Royal Tank Corps were joined by the newly mechanized Cavalry of the Line to form the Royal Armoured Corps in April 1939. As one might expect, the quality of the men who made up these tank crews was first class but sadly the haphazard way in which British tank designers continued, during the early war years, to produce tanks that were obsolete in design, undergunned and in many cases lacking in armoured protection or engine power did not help on the battlefield. This made life extremely difficult for the tank crews because although their AFVs were adequate against the even worse Italian and Japanese models of the period, they were markedly inferior to the German Panzers, which were, after all, their main opponents. This situation did not start to be rectified until the generous supplies of American-built tanks began to arrive and it was not until the closing months of the war that British designers produced anything comparable.

As has already been explained in the Introduction, a 'tank ace' is not necessarily always a tank commander who has knocked out large numbers of enemy tanks. In some cases, merely by his presence and example on the battlefield, or by the way in which he motivates others to hold firm against impossible odds, a 'tank ace' can achieve startling results. This often calls for sustained courage over a period of some days, as indeed was the case with the first of our three British 'aces', whose achievements were marked by the award of his country's highest decoration for bravery.

MAJ GEN H.R.B. FOOTE

The Victoria Cross (VC) is Great Britain's highest decoration for 'conspicuous bravery or devotion to the country in the presence of the enemy'. It is open to all ranks – officers, Warrant Officers (WOs), Non-Commissioned Officers (NCOs) and men of all three Services. The medal was instituted by Royal Warrant towards the end of the Crimean War, on 29 January 1856, and is one of the most coveted decorations in the world, representing as it does an imperishable act of bravery which leaves us speechless with admiration. The simple bronze crosses were – and still are – cast from the metal of Russian guns taken at Sevastopol and consist of a maltese cross, bearing in its centre a royal crown surmounted by a lion upon a scroll inscribed FOR VALOUR. On the reverse side of the cross is the date of the act for which the decoration has been bestowed, together with the name, rank and unit of the recipient. The ribbon is crimson (although it was described as being 'Red' in the Warrant). Only 1,348 Victoria Crosses have been awarded to date and the men of the Royal Tank Regiment (RTR) and its forebears have won a total of six, of which Gen Bob Foote's was one of two awarded during the Second World War.

Henry Robert Bowreman 'Bob' Foote, or 'Fairy'[1] or 'Footie' as he was affectionately known in the regiment, was born in India on 5 December 1904. He was educated at Bedford School and commissioned into the Royal Tank Corps (RTC) from the Royal Military College, Sandhurst, on 29 January 1925. His first appointment was as a tank troop leader with 3 RTC at Lydd, Kent, but he then returned to the RTC Central Schools for conversion to armoured cars. One of his first duties as a young officer was to be a member of an armoured car company used in May 1926, during the General Strike, convoying buses, petrol lorries, mail vans, and so on through the London streets. Fortunately, as he put it: 'there was an almost total absence of anything hostile – the very occasional remark from some crowd of unemployed was shouted usually more in humour than in anger; the one or two ejaculations from rather savage females reflecting upon the parentage of the military; the single glass bottle which burst like an egg some yards behind the car it was aimed at – these were the only incidents that occurred as far as the company was concerned.' Foote went out to India in 1927, much of his pre-war service being spent there with the 7th Armoured Car Company (7 ACC), stationed at Lahore. He was with 7 ACC when it was re-equipped with light tanks and once told me how, in 1930, the C-in-C India decided to buy four Vickers Mark 1A light tanks to see if they were suitable for use in India, especially in the North-West Frontier on convoy protection duties. Foote was then adjutant of 7 ACC, and was put in charge of the trials. He recalled:


Maj Gen Foote VC, CB, DSO, who died on 22 November 1993, aged eighty-eight. After retiring, he was chairman of both the VC and GC Association and the RAC War Memorial Fund for a number of years. (Tank Museum)

'We were to take the tanks up to Razmak and carry out trials under frontier conditions. At that time all the convoys had to be escorted by armoured cars, with infantry picketing the hills on either side of the road. The infantry were often attacked as they withdrew from the hilltops, but the tanks could stay up on top until the infantry had withdrawn and stop the tribesmen from attacking them. . . . At the end of the trials we laid on a demo of climbing in and out of *nullahs*, knocking down walls, and trench-crossing capabilities. Halfway through, the C-in-C stopped it and said: "Gentlemen, I think I have seen enough to show that light tanks are obviously very suitable for the North-West Frontier and I am going to order enough to equip two light tank companies straight away." '

Although the sturdy little tanks were good enough for operations against the wild tribesmen of the North-West Frontier, they would be seriously underarmoured and undergunned when it came to a real 'shooting war' a few years later. Bob Foote returned to the UK in 1932 and was posted to 4th RTC,

A young Bob Foote just embarking upon his Army career. He was commissioned into the RTC in 1925 and spent a number of years in India, serving with 7 ACC, then in the early 1930s carrying out trials on light tanks, which proved ideal for use in the North-West Frontier. (Tank Museum)

then in Catterick, North Yorkshire, and later at Farnborough, Hampshire.

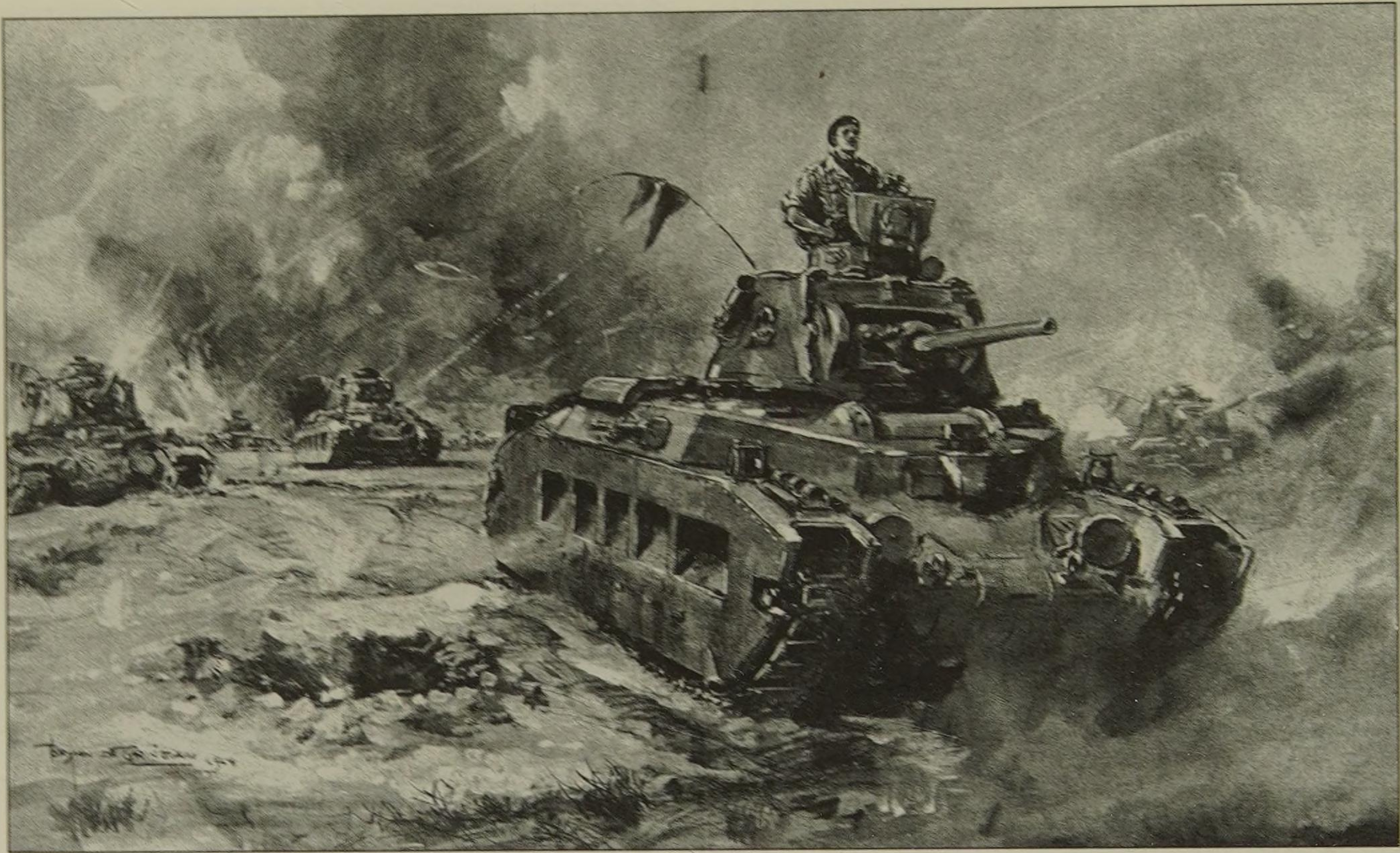
When war broke out Foote was attending the Staff College at Camberley and then held various staff and regimental appointments. These included a spell of instructing back at the Staff College; serving as 2IC of 40 RTR (TA), which, until the expansion of the RTR, had been the 7th Battalion of the King's Regiment (TA); and serving as a member of a War Office team which was sent to Canada and the USA in 1941, where he attended armoured manoeuvres in the Red River area of Louisiana. He eventually became the GSO1 of the 10th Armoured Division (Armd Div) in Palestine in late 1941. The division played a major role in defeating the Raschid Ali rebellion in Iraq and in the invasion of Syria. Then, in April 1942, Foote was appointed to command 7 RTR in the Western Desert. At this time, 7 RTR was part of the 32nd Army Tank Brigade, equipped with Matilda Mark IIs and Valentines. Both were heavily armoured infantry tanks, but lacked gunpower, their main armament being the Ordnance Quick Firing 2-pdr Mark IXs and Xs. This was an excellent gun for its size, but had no high explosive (HE) potential as the shell was far too small, while its armour piercing (AP) capability was limited to defeating only 40 mm of homogeneous armour at 1,000 m. Nevertheless, the 26-ton tank had earned the title *Queen of the Desert* in its operations against the Italians in 1940–1, when Gen O'Connor's tiny Western Desert Force, which included 7 RTR, had first soundly defeated and then completely destroyed the entire Tenth Italian Army. However, the arrival of Rommel's Deutsches Afrika Korps (DAK) in April 1941 changed all that, the cumbersome, slow and undergunned Matildas being no match for the German PzKpfw IIIs or IVs, especially their 'Specials', which mounted long-barrelled 75-mm guns which could defeat almost double the thickness of armour (79 mm) as the 2-pdr at a similar range.

Bob Foote took over the 7th just before the second German offensive began on 26 May 1942, when Rommel's forces swept around the open desert flank of the British Gazala Line positions, thus pre-empting Auchinleck's planned offensive to win back Cyrenaica. Still with its old Matildas, 7 RTR was hurriedly moved up to support the 1st South African Division. In the heavy fighting that followed there were many casualties, which meant that tank crews became very mixed with men from other parts of the regiment who were not trained tank crewmen, thus good radio communications, normally the 'life-blood' of any armoured unit, were, to put it mildly, very

The anniversary of the Battle of Cambrai (20 November 1917) is always celebrated by the RTR as its Regimental Day. This photograph was taken during Cambrai Day celebrations in 4 RTC during the 1930s. Bob Foote looks somewhat 'fairy-footlike' despite the rugger jersey! (Tank Museum)

difficult. Therefore, whenever they were in semi-static defensive positions, Bob Foote would get out of his tank in the middle of the battle and go round in his jeep or on foot, encouraging his men. This might be thought foolhardy, but the casualties had been so great that he felt he needed to do things that way. He worked on the principle that it was so much better to say 'Come on chaps', rather than 'Go on', and to lead always by example.

On 4 June a counter-attack against the enemy bridgehead was launched, with the 7th in the thick of the fighting, being part of the northern thrust aimed at clearing the western end of the Sidra Ridge. Early in the action, while pursuing a large force of retreating German armour, the regiment came under heavy anti-tank and artillery fire and Foote's command tank was knocked out. He was forced to abandon it and while dashing over to another tank was wounded in the neck by a machine-gun bullet. Despite being in great pain he refused to get inside the second tank, but continued to exercise command, standing outside on the turret where everyone could see him. When this tank was also hit and disabled, he took to his feet, redeploying his tanks with great skill and bravery, despite the intense enemy fire. He was awarded the Distinguished Service Order (DSO) for this action. A week later, on 13 June, when Rommel was trying to encircle the 201st Guards Motor Brigade Group in the Knightsbridge 'Box',[2] Foote arrived at the critical moment and, leading the



Artist's impression of Lt Col Bob Foote winning the VC at the head of his regiment in the Western Desert. He had been awarded the DSO just a few days previously. 'His name was a byword for bravery and leadership throughout the brigade.' (Tank Museum)

remnants of his regiment, which had by then been combined with those of 42 RTR, he was able to stop the 15th Panzer Division from cutting the Guards' withdrawal route, holding it open until darkness fell so that they were able to escape. Some of the heaviest and most vicious fighting of the campaign took place there, with the entire British force soon down to under 70 tanks, while Rommel still had some 100 German and 70 Italian tanks left. Foote was ordered to reorganize the remaining British armour, which was continually under heavy fire. It was essential not to give ground, so, after walking from one tank to another, encouraging the crews, totally indifferent to the intense fire now sweeping the area, he then placed his tank in front of all the others, making himself plainly visible by standing up in the turret, shouting encouragement to hearten the other crews. His tank was hit twenty-nine times and, when everything had gone, no communications working, no guns able to fire, he led what was left of his regiment forward on foot, using hand signals to guide them. The citation for his Victoria Cross reads:

'On 6th June, Lt Col Foote led his Battalion, which had been subjected to very heavy artillery fire, in pursuit of a superior force of the enemy. While changing from one tank to another after his own had been knocked out, Lt Col Foote was wounded in the neck. In spite of this he continued to lead his Battalion from an exposed position on the outside of a tank.

'The enemy, who were holding a strongly entrenched position with anti-tank guns, attacked his flank. As a further tank had been disabled he continued on foot under intense fire encouraging his men by his splendid example. By dusk, Lt Col Foote by his brilliant leadership had defeated the enemy's attempt to encircle two of our divisions.

'On 13th June, when ordered to delay the enemy tanks so that the Guards Brigade could be withdrawn from the Knightsbridge escarpment and when the first wave of our tanks had been destroyed, Lt Col Foote reorganised the remaining tanks, going on foot from one tank to another to encourage the crews under intense artillery and anti-tank fire.

'As it was of vital importance that his Battalion should not give ground, Lt Col Foote placed his tank, which he had then entered, in front of the others so that he could be plainly visible from the turret as an encouragement to the other crews, its guns rendered useless. By his magnificent example the corridor was kept open and the Brigade was able to march through.

'Lt Col Foote was always at the crucial point at the right moment, and over a period of days he gave an example of outstanding courage and leadership which it would be difficult to surpass. His name became a byword for bravery and leadership throughout the brigade.'

Lt Col Henry Robert Bowreman Foote DSO was awarded the Victoria Cross for his outstanding courage and leadership over the period of three weeks – 27 May to 15 June 1942.

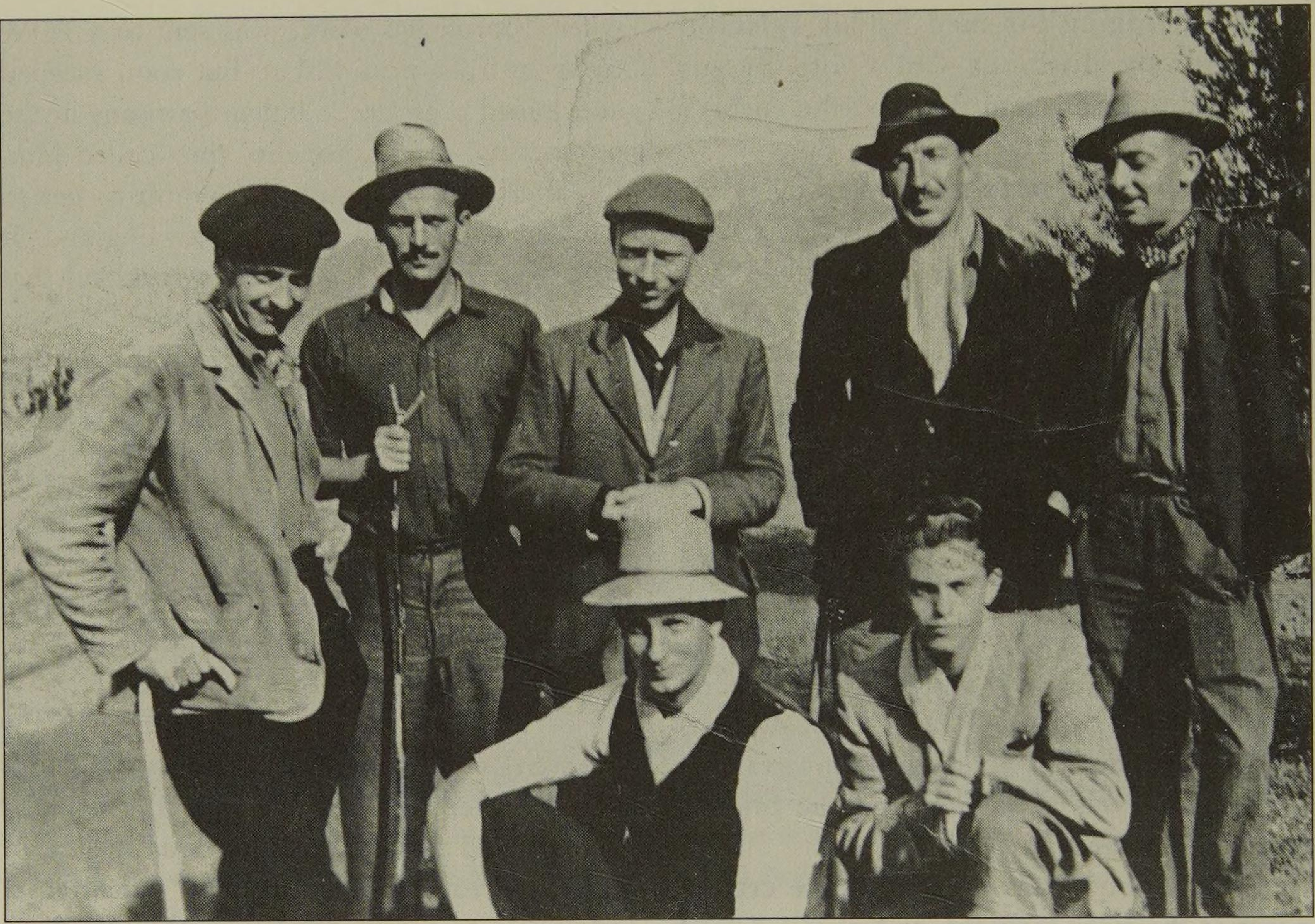
The Gazala battle inevitably ended with the British being forced to withdraw from Cyrenaica and, unfortunately, just a week later, Bob Foote's luck also ran out and he was captured after breaking his leg falling into a wadi while trying to escape from Tobruk, which the Germans had by then surrounded. 4 and 7 RTR, who had been supporting the South African garrison, first in their tanks then fighting as infantry when the battered AFVs were knocked out, were all but wiped out when Tobruk fell. Foote was sent to a POW camp in Italy, near Milan, but soon escaped and joined a group of Italian partisans in the mountains – 'El Colonello' they called him. Eventually they arranged for him to get to Switzerland and thence back to England. It was while he was in neutral Switzerland that he first heard the news of his Victoria Cross.

After his release from internment in Switzerland, he was posted to Allied Forces HQ in Italy, as Brigadier, Royal Armoured Corps, Middle East. While in this post he became a member of the *Caterpillar Club*,[3] having made the parachute jump necessary to membership over Switzerland from an RAF Hudson flying from Rome to Berlin in September 1945 to attend the Victory Parade. He recalled:

'As we flew over the Brenner Pass we ran into bad weather and heavy icing. Our wireless had packed up and the pilot was unsure of our position, so he did not consider it advisable to try to get below the clouds in case we had not cleared the mountains, so he decided to turn back to Italy. Luckily he had told us as a precaution to put on our parachute harness, as about twenty minutes later, the machine went out of control due to icing and the pilot told us all to bale out.

'We landed in the area of Schwartz, all eight of us getting out safely, but two (Maj Gen Birks and Brig Napier) landed on top of a mountain, breaking a leg and an ankle respectively. I landed in a forest, halfway down a fir tree, but with only minor injuries.'

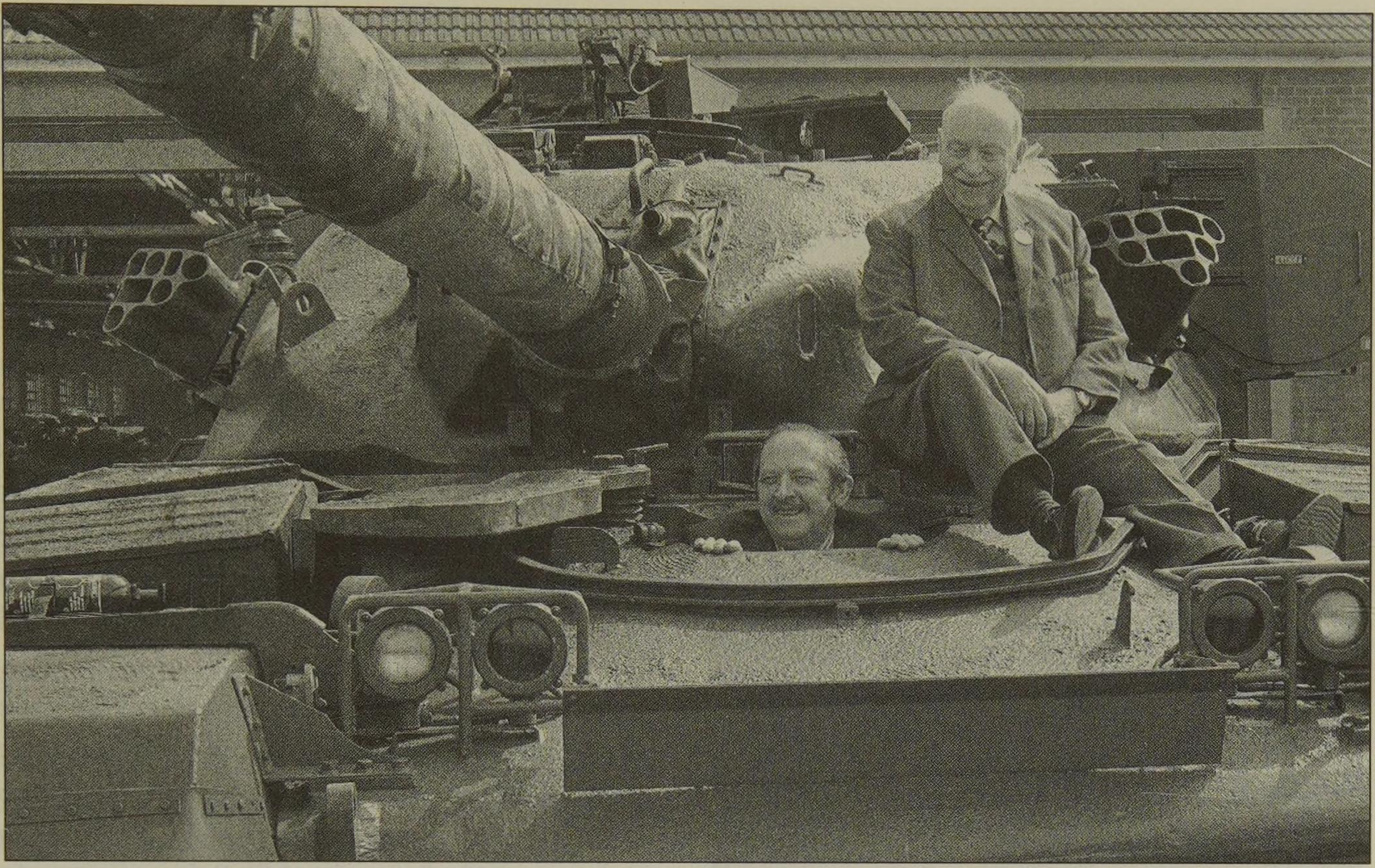
Postwar, Foote reverted to lieutenant colonel to command 2 RTR, then commanded the 7th Armoured Brigade (Armd Bde) in 1949–50 and, having been promoted to major general, 11 Armd Div in 1950–3. I remember meeting him during an exercise in Germany in 1949 and being immediately impressed by the genuine interest he showed in a young, inexperienced



Bob Foote (centre rear) with other escapees, 'somewhere in Italy', after they had escaped from a POW camp near Milan and then joined up with a group of Italian partisans. He eventually reached England via Switzerland. (Tank Museum)

troop leader whose tank, as he gently pointed out, was 'tracks up' to the enemy! His balanced 'mix' of abilities, centred as they were upon tanks and tank warfare, made him the ideal choice for the post of Director General Fighting Vehicles at the Ministry of Supply from 1953 to 1955. He then became Director of the Royal Armoured Corps until he retired in 1958, to begin a second career as a military adviser to the Leyland Motor Company, a post he held for the next ten years. He was a founder and for many years a trustee of the Tank Museum (Corps Museum of the Royal Armoured Corps and Regimental Museum of the Royal Tank Regiment), Chairman of the RAC War Memorial Benevolent Fund for eleven years, and Chairman of the VC & GC Association. He was also an active supporter of the Ironsides Golf Club and played golf throughout his retirement. Some years ago, he was very amused to find himself chosen as the subject for Eamon Andrews' *This is Your Life!* programme on television. It required great cunning and quick thinking on the part of his wife, Audrey, to keep him from finding out beforehand!

Foote married Anita Flint Howard just after his escape in 1944. They had no children and he was widowed in 1970. He remarried in 1981 to Mrs Audrey Mary Ashwell, who survived him when he died on 22 November 1993, aged eighty-eight years. Always modest and self-effacing, with a keen sense of humour



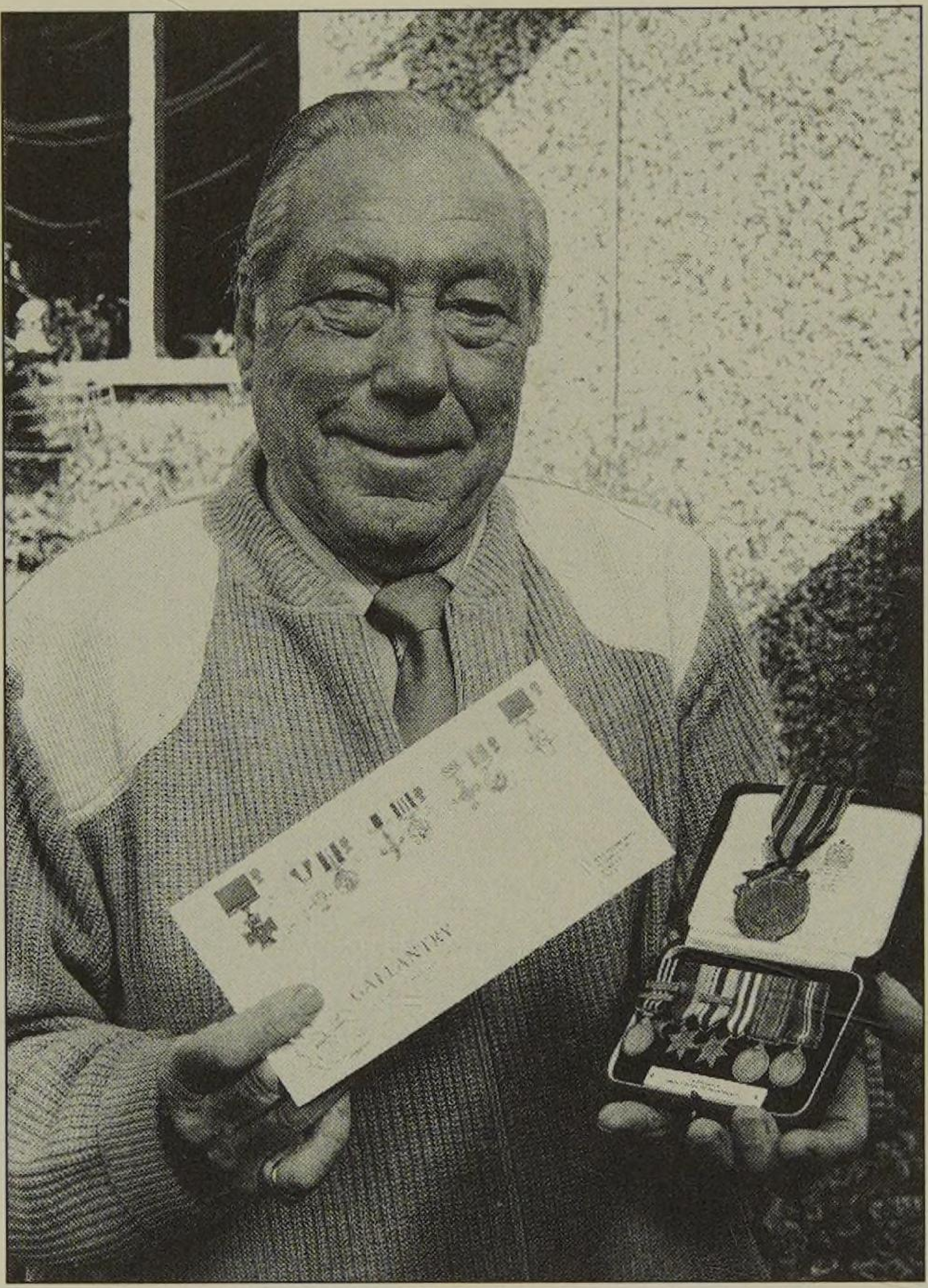
Gen Bob Foote joins the RTR's other Second World War VC winner, Maj Pip Gardner VC, MC, on a Chieftain main battle tank at the Bovington Tank Museum. (Tank Museum)

and quiet determination, Gen Bob Foote inspired loyalty and devotion in all who served with him or had the privilege of knowing this remarkable man. Gen Bob Foote's decorations and medals, together with a summary of his outstanding career, can be seen in 'RTR Corner' in The George Forty Hall at the Tank Museum, Bovington, Dorset.

SGT F.W. KITE

The Military Medal (MM) is a gallantry award instituted by Royal Warrant on 25 March 1916, for 'Bravery in the Field' by NCOs and men of the Army. Subsequent warrants made it available to other ranks of 'Any of Our Military Forces', also to equivalent ranks of allied or 'associated' armies and to women. The medal ribbon is dark blue, with three white and two crimson stripes down the centre. In 1995 the awarding of the Military Medal was discontinued and the Military Cross broadened to cover All Ranks and not just officers. Only one NCO in all three of the Armed Services was awarded three Military Medals during the Second World War, and he was Sgt Frederick William 'Buck' Kite, a tank commander serving with 3 RTR.

Born in 1919, Buck enlisted at Lichfield in 1936, and chose to join the RTC. After his initial training at the RTC Depot and Central Schools in and around Bovington Camp in Dorset, he was posted to the 3rd Battalion, RTC, then stationed at Lydd, Kent, and under the command of Lt Col H.H. Dean. Together with the 2nd and 5th they made up the 1st Tank Brigade, which later changed its title to 3 Armd Bde under Brig John Crocker.



Sgt Kite, the only triple MM winner of the Second World War, proudly shows off his medals. He had to fight against bureaucracy, not only to get a disability pension, but then to get back the *6d* a day for his MM and Bars which had been automatically docked once he was awarded a pension. So much for a 'land fit for heroes'! (Mrs Kite)

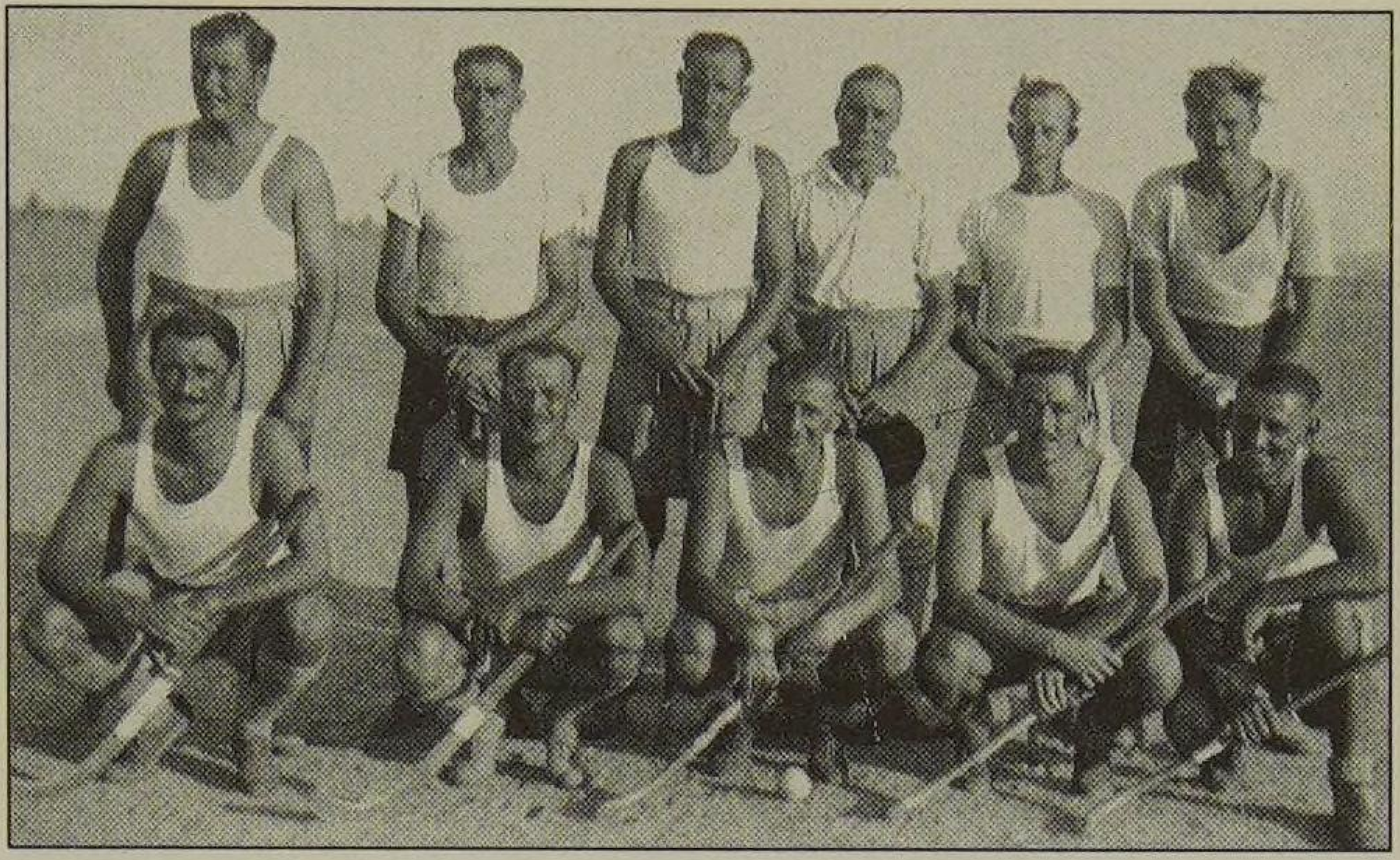
Although war clouds were building in Europe, the men of the 3rd took every advantage to play sport, with Fred Kite well to the fore – having had a trial for Port Vale before joining up, he was much in demand and was a member of both the regimental football and hockey teams. By the summer of 1939 Kite was detached from the regiment, an acting staff sergeant instructor with the 2nd Searchlight Regiment. However, as soon as the war began he asked to be returned to his unit, accepting the fact that he would have to lose his stripes and revert to lance corporal, which undoubtedly shows his loyalty and affection for the 3rd and his mates.

By 1939 3 RTR[4] had moved to Warminster into newly constructed barracks, close to one of the major mechanized training areas in the UK – Salisbury Plain – while the 2nd was at Farnborough and the 5th at Perham Down. However, once the war had started 3 Armd Bde left its new barracks *en masse* and, after spending some time under canvas, moved into billets in the Fordingbridge area. When the British Expeditionary Force (BEF) went to France in late September 1939, it was the cavalry regiments of the 1st and 2nd Light Armoured Reconnaissance Brigades, plus the 1st Army Tank Brigade of 4 and 7 RTR, who went over as part of the BEF, leaving 3 Armd Bde in the UK – but not for long.

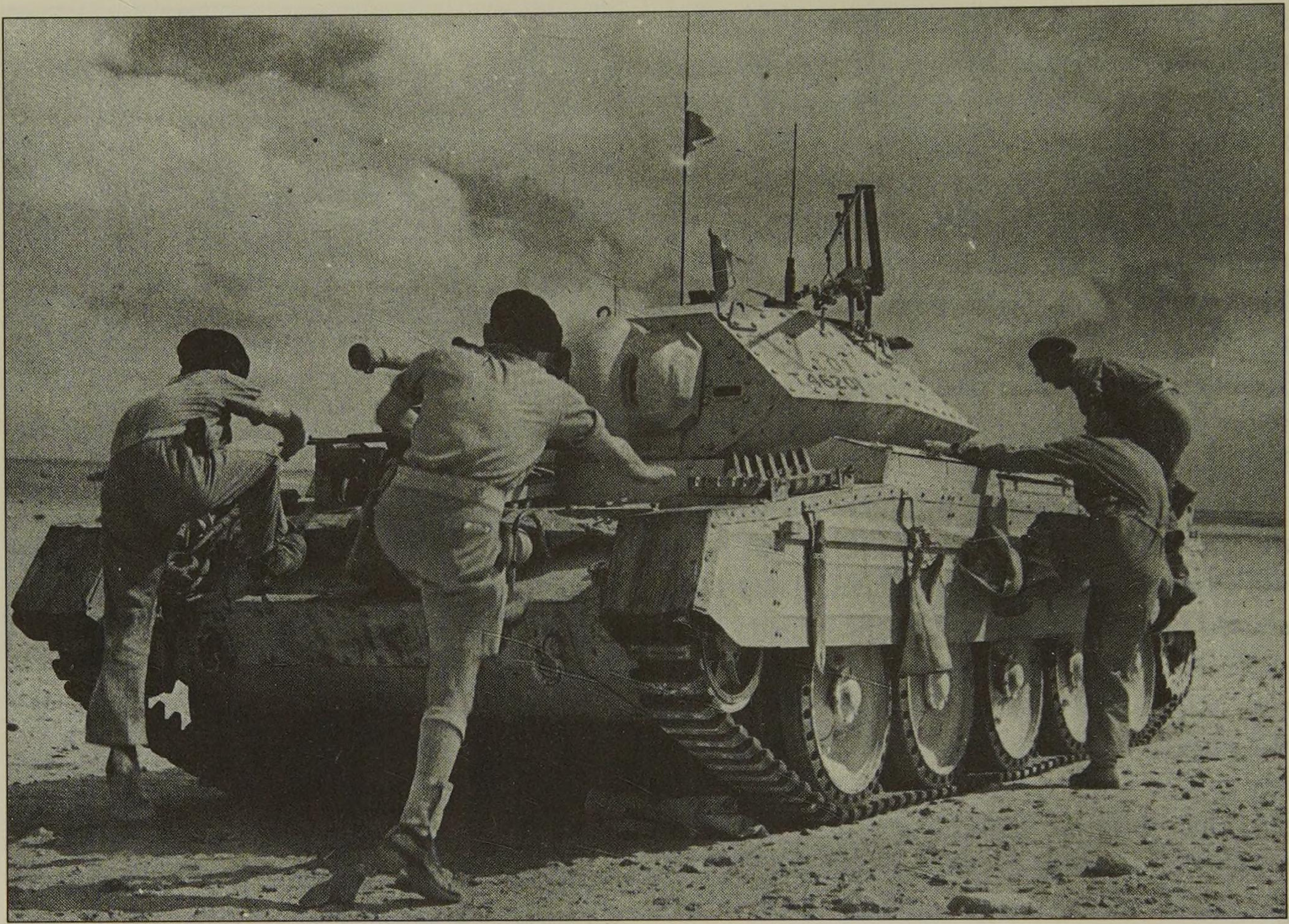
Following the indecisive 'Phoney War', the speed and power of the German Blitzkrieg took everyone by surprise as it swept over the borders into France and the Low Countries on 10 May 1940. Soon the Allied forces were in complete disarray, with the BEF struggling to escape from Dunkirk and other Channel ports, none of which were properly garrisoned. Somewhat impetuously, and presumably to guard the BEF's rear and their withdrawal route through the Channel ports, the War Office sent an infantry force over to Boulogne, despatched 5 RTR to Cherbourg and sent to Calais a mixed force of tanks and infantry, including 3 RTR. They landed on the 22nd, under the command of Lt Col R.C. Keller, equipped with a mixture of cruiser and light tanks, and in support of the 30th Infantry Brigade. These forces had been sent to honour Prime Minister Winston Churchill's promise that 'Calais should be fought to the death'. Lord Gort, C-in-C of the BEF, had intended to use the tanks on the canal line and to protect his GHQ at St Omer, but although the 3rd did attempt some operations in the Gravelines direction, it was already too late and instead it was employed mainly in defensive roles in and around the port. It was soon under heavy attack, every inch of every street being fought for, but the garrison refused to surrender. One small group of defenders after another was surrounded and overwhelmed. The fighting did not cease until the evening of 26 May, the Official History recording that: '. . . they gained the distinction of having fought to the end, at a high cost of life and liberty, because this was required of them. They helped to make it possible for the BEF to reach Dunkirk and by their disciplined courage and stout-hearted endurance they enriched the history of the British Army.'

Lance Cpl Kite, without a tank of his own due to his recent return to the regiment, was with the 3rd's reserve crewmen. They had started off being located with the echelon in a park close to the town hall in Calais. However, they were soon mobile, following the rest of the regiment out of Calais, but they rapidly lost contact with the tanks and eventually had to return to Calais and the park. Eventually it was decided to evacuate part of the Calais garrison immediately, and Col Keller was ordered to send off any men not required to man his tanks. This included the entire B Echelon, which had already been ordered to burn its vehicles. Kite was among those who escaped in the hold of a ship, returning with what was left of the 3rd to their billets in Fordingbridge which they had left just a few days previously with such high hopes.

Six months later the reformed 3 RTR left from Liverpool, en route for Egypt, via Sierra Leone and the Cape. It landed at Alexandria on 13 June 1940 and, as part of the newly formed 2 Armd Div, was moved up into the desert to take over from the 7 Armd Div, which was in desperate need of rest and refit. However, the 3rd was not destined to stay in the desert for long, being sent as part of the expeditionary force to Greece. Kite missed this excitement, being incarcerated in hospital in Egypt. But his time would come – and with a vengeance! 3 RTR had to make yet another hasty – and bloody – withdrawal, via Crete, back to Egypt, and was then sent up to the front line once again, where it soon found itself in the thick of the fighting – now against Rommel and his DAK – far more formidable opponents than the Italians. Nearly two years of desert campaigning followed, the two armies battling against each other and against the physical difficulties of the appalling desert conditions, with first one side then the other gaining the ascendancy. However, Montgomery's great victory at El Alamein in October 1942 changed everything and the Axis forces were now in the final stages of being forced back into Tunisia by the advancing Eighth Army. However, it was never a rout and



Above: 3 RTR Hockey Team, winners of the Divisional Hockey Cup. 'Buck', who played in goal, is third from the right on the back row (the only one wearing a shirt). (Maj Bill Close) *Below*: 'Buck' Kite making tea, somewhere near Gazala in the Western Desert, June 1942. All desert soldiers quickly became experts at 'brewing-up' in the treeless desert, using special homemade 'Benghazi' cookers. (Mrs Kite)



Crews Mount! It was in a Crusader like this that Sgt Kite won his first MM on 20 January 1943, while patrolling near Tarhuna with Recce Sqn 3 RTR. Light and fast, the Crusader's major drawback was its paper-thin armour. (Tank Museum)

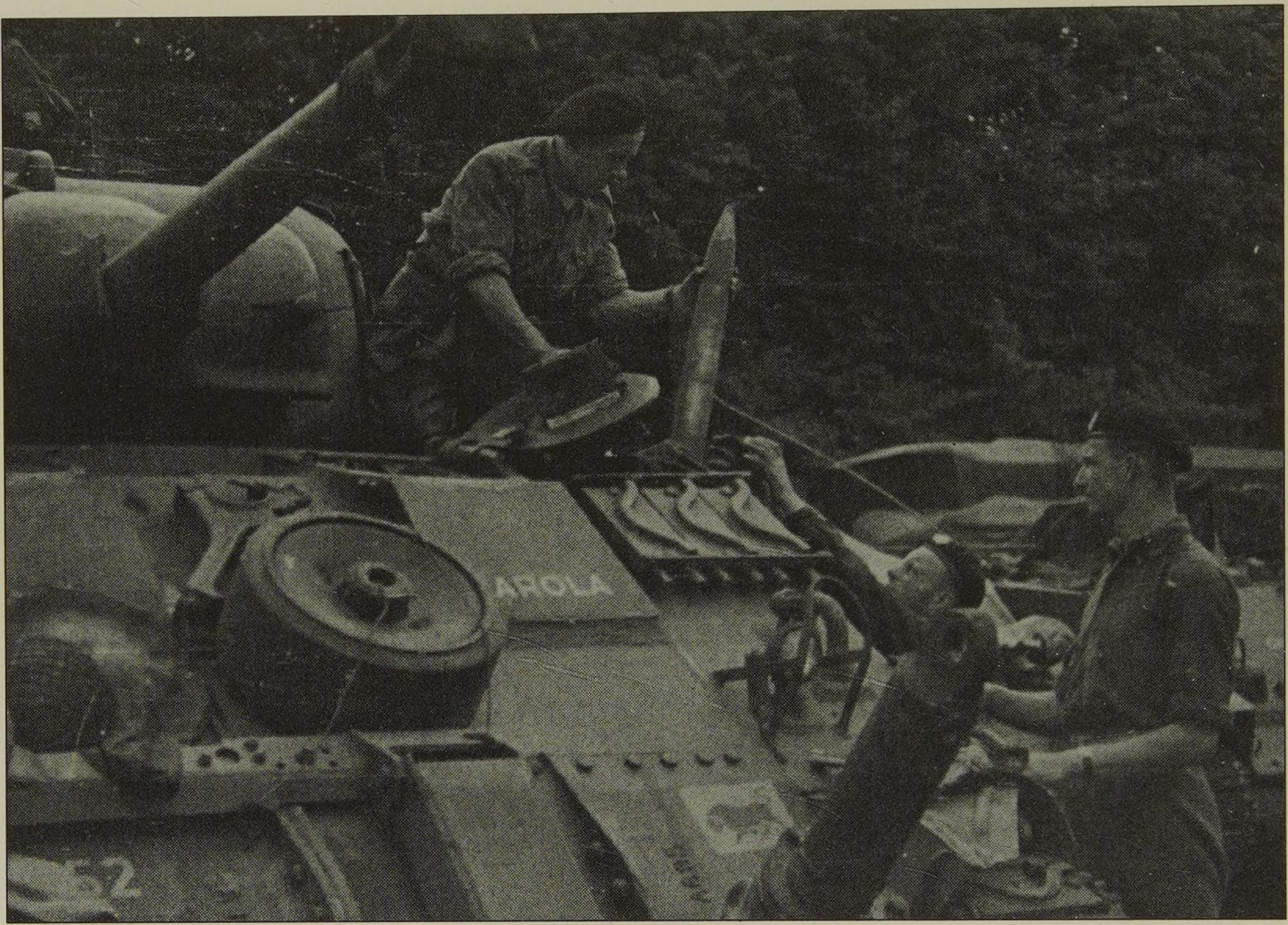
the DAK fought back, stubbornly contesting every kilometre along the way.

By January 1943 Sgt Fred Kite, now a highly experienced and competent tank commander, was serving in Recce Squadron of the 3rd, invariably in the lead, always probing the enemy screen to locate his main delaying positions. On one occasion, on 20 January, he was commanding his troop (4 Tp), equipped with two light, fast (but poorly armed and armoured) Crusader cruiser tanks, engaged in a special reconnaissance in the area just west of Tarhuna, en route for Tripoli. The nature of the ground, the poor visibility, the enemy strength in machine-gun, anti-tank and artillery fire, which repeatedly hit his two tanks, made conditions desperately difficult. In such hostile conditions Kite excelled himself. No enemy field or anti-tank gun – or machine-gun for that matter – opened fire without him reporting its exact location to the artillery Forward Observation Officers (FOO). As a result, counter-battery fire was able to neutralize the enemy guns saving many lives. As he pressed forward he engaged the enemy gun crews with machine-gun fire, causing much confusion and many casualties. On several occasions he became dangerously isolated but fought his way out. His citation for an immediate award of a Distinguished Conduct Medal (DCM; altered to a Military Medal and signed by both Alexander and Montgomery as well as his CO, Lt Col

H.E. Pyman) closes with the words: 'His actions had much to do with the hurried and disorderly withdrawal of the enemy towards last light. His complete disregard of personal safety, his skilful leadership and his good humour throughout, were a fine example to all who watched him and listened to his wireless reports.'[5]

In December 1943 3 RTR returned to the UK to join 29 Armd Bde as part of 11 Armd Div, which landed over the Normandy beaches a week after D-Day, on 13 and 14 June 1944. They had been re-equipped with the latest models of the US M4 medium tank, the Sherman, although the majority were still armed with 75-mm guns. Only one Sherman per troop, known as a Firefly, mounted the British 17-pdr gun. The division was soon in the thick of the fighting, playing an important role in Operation 'Goodwood' in mid-July in the area of Caen. During the battle, in the vicinity of the village of Bras, Buck was awarded a Bar to his Military Medal, while commanding a tank troop in A Sqn over the period 18–19 July. 'At all times he displayed a very high standard of leadership, dash and personal courage and was an example to the remainder of the squadron', reads the opening paragraph of his citation. It goes on to tell how, when they were held up by two enemy tanks and two 88-mm guns, located on the high ground at Bras, Sgt Kite, by clever use of ground, got forward and knocked out both tanks (a PzKpfw IV and a Panther) and one of the 88s. He then held his position despite strong enemy pressure, allowing the rest of the squadron to get forward to better fire positions. Later, his tank, nicknamed *Shuftie's Hope*, was badly damaged by enemy fire while trying to cross an embankment. The engine was damaged and could not be restarted. By now it was dark and a heavy enemy barrage was dropping all around them. Clearly it was only a matter of time before his tank, a sitting target stuck tracks up on the railway embankment, would be hit again, so he gave the order to bale out. Before leaving the tank, the crew endeavoured to set it on fire, then moved out on foot. Fortunately, they met up with a Cromwell belonging to the Northants Yeomanry and hitched a lift back to their leaguer for the night, reporting back to 3 RTR's leaguer the following morning to collect a new tank and continue the battle.

Under one month later, Kite earned a second Bar to his Military Medal – the only member of the British Armed Forces to do so in the Second World War, although the citation, as in North Africa, initially recommended him for the higher award of the Distinguished Conduct Medal. This was to be his last battle, because Buck was seriously wounded during the action, which took place on 3 August 1944, in the vicinity of the village of Le Grand Bonfait. He was commanding one of two troops of Shermans, located on the edge of an orchard, whose task was to support a company of the Shropshires. They had taken up their positions after a difficult night march. He had a Firefly and three 75-mm Shermans in his troop and there were a couple of Royal Artillery FOO OP tanks with them. The morning started quietly enough, then, about 0930 hrs, they were counter-attacked by enemy panzer grenadiers, supported by four Panther tanks, plus at least one of the dreaded German Tigers, whose 88-mm gun, thick armour and good all-round performance made it one of the most feared tanks on the battlefield. The nature of the ground was such that the enemy had been able to work their way, undetected, to within 400 yd of the British positions. There was pandemonium in the orchard as all hell broke loose. All the other tanks in Kite's vicinity were hit and set on fire. Some crews panicked and took shelter underneath their vehicles instead of getting into them and firing back. Kite, however, did not panic. He quickly got himself and his crew back into their tank and began to



Bombing up. The crew of this Sherman, belonging to the 2nd Fife and Forfar Yeomanry, is engaged in replenishing the tank with 75-mm rounds – of which ninety-seven could be carried in the internal ammunition bins. This is the type of M4 medium tank in which Sgt Kite fought in north-west Europe. One tank in each troop was a Sherman Firefly, armed with a 17-pdr gun. 2 FF Yeo was in the same brigade (29 Armd Bde) as 3 RTR. (Tank Museum)

engage the enemy, firing so many rounds that they soon ran out of AP shells and had to use HE, which was not very effective against armour. While he was firing at the enemy, Kite was also continually giving accurate corrections to the artillery over the radio, thus preventing the enemy infantry from forming up for a final assault on the position, and at the same time keeping his tank in action and scoring many hits on the enemy tanks at short range. Realizing that his HE fire was ineffective against the enemy tanks, he remembered the Firefly with its more powerful gun. So, accompanied by his gunner (Tpr Herbie Barlow), he ran over to the Firefly and scrambled on board, choosing to stand on the back decks rather than getting inside. Then he shouted for another man who was taking cover under a nearby tank to come and load. Eventually they got the Firefly into action, but after firing only a few rounds, the tank was hit and started to brew up, so they had to abandon it and return to Kite's own Sherman. A little while later Kite made a foray to get some AP ammunition from one of the damaged OP tanks, then began again to engage the enemy tanks – there was no shortage of targets and he hit at least two.

They say that you never hear the one that gets you and certainly I didn't when I 'bought it' in Korea. The mortar bomb landed in the ditch beside me – exactly where I would have taken cover had I heard it coming, thus changing 'Wounded in Action – Severity Moderate' to 'Killed in Action' and finis. For Buck, however, it was entirely different. He once told me about the moment when he 'got his' and said that he had watched it 'all the way'. One moment he had been concentrating on knocking out a Panther, the next he was watching another enemy tank traversing its gun towards him. He started to give a correction to his gunner, but before he could complete the fire order and bring his gun to bear – no commander's override in those days – he saw a flash at the end of the German's gun muzzle and watched the corn bending as the round sped towards him. All he had time to do was to say to himself 'This is it, Goodbye!' When he came to, he was lying on the back of his badly damaged tank, with wounds to his head and left hand. Later, his crew told him how, when their Sherman had been hit, he had dropped, wounded and unconscious, down to the bottom of the turret. They had managed to get him out onto the back decks, but then, as he was being lowered to the ground he was hit for a second time – shrapnel in the right arm – and this time the wound was a serious one. Buck Kite was evacuated, firstly to a Canadian field hospital, then by air to the UK. After spending a short time in a naval hospital in Portsmouth he was transferred to Scotland, to a specialist hospital, where the severed nerves in his arm could be repaired. However, his right arm was permanently damaged and in May 1945, just before his investiture at Buckingham Palace to receive the two Bars to his Military Medal, he was told that he would be discharged with a disability pension.

Postwar, Buck became Chief Wages Clerk to a factory in Stoke-on-Trent, retiring in 1985, but still maintaining his close links with the regiment. Having no children to pass on his medals to, he generously donated them to the Tank Museum, where they are always proudly on show in 'RTR Corner'. Sadly, Buck died on 25 May 1993, aged seventy-four. His close friend and late squadron commander Maj Bill Close MC told me:

Sgt 'Buck' Kite outside Buckingham Palace in 1944 to receive his first MM. He would attend again in May 1945 to collect his two Bars, in civilian clothes. On this latter occasion King George VI asked him if he had a job – he hadn't, but out of embarrassment he said that he had 'something lined up'. Afterwards he wondered if HM would have offered him one if he had said 'No'! (Tank Museum)

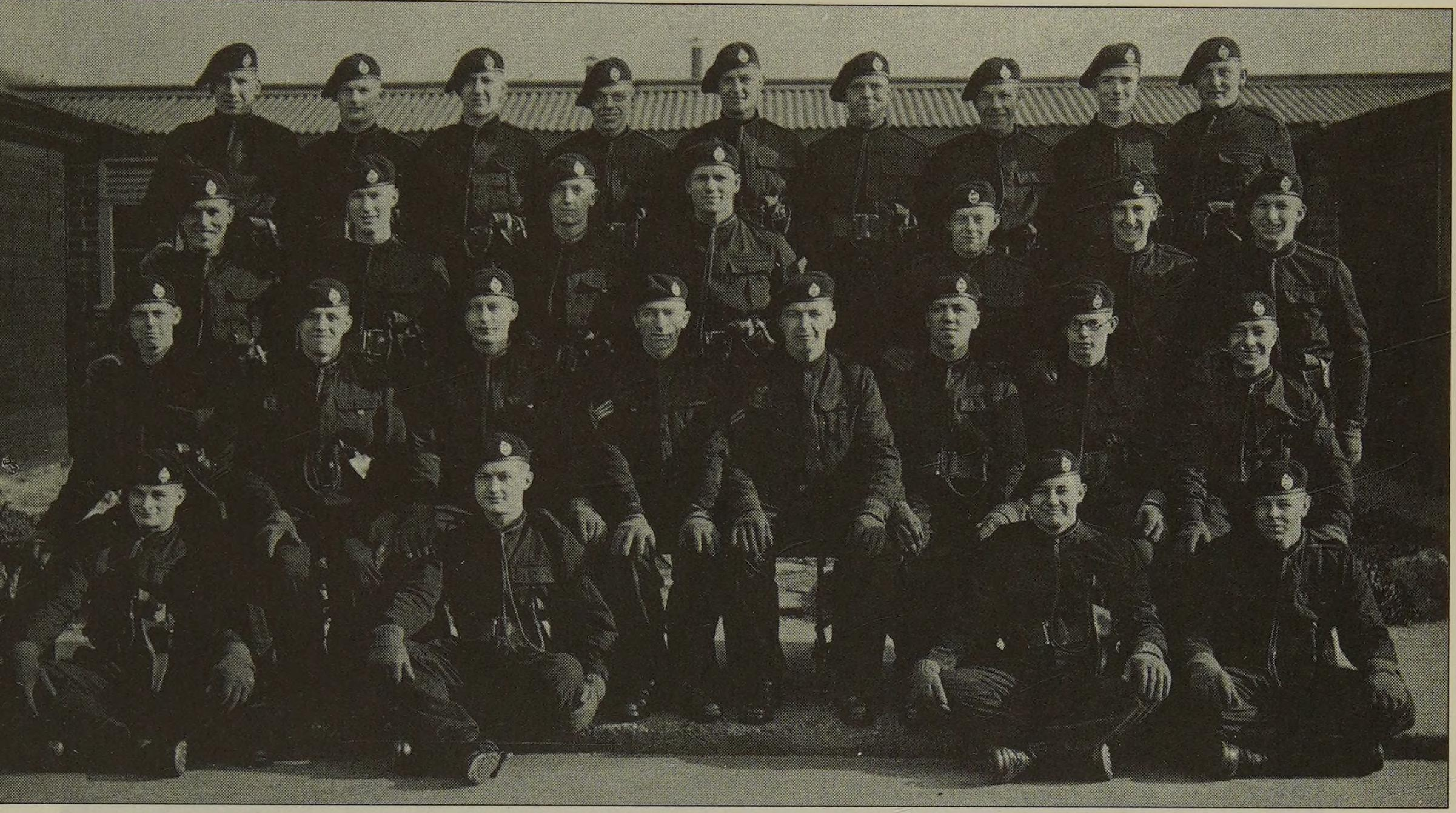
'I consider Buck to be just about the best Troop Sergeant ever. . . . I relied on his tank expertise to a great extent and on several occasions, after receiving new and fairly "raw" subalterns, I would put them in a troop under Buck for a few days – it worked wonders! During Operation 'Goodwood' he was particularly outstanding and in knocking out several SP guns and two Panthers, enabled 'A' Squadron to hold their position just short of Bras. I was so impressed by his actions that, after losing my other two HQ tanks, I joined his position and commanded the squadron from there.'

MAJ F.A. RYCROFT

Francis Arthur 'Skipper' Rycroft was awarded both the Distinguished Conduct Medal and the Military Medal while serving with 6 RTR in the Western Desert. Subsequently, he was commissioned and went on to win a Military Cross (MC) with 46 RTR in Italy in 1944. The Distinguished Conduct Medal was instituted by Royal Warrant on 4 December 1854 in order to provide a gallantry medal for other ranks in the Army. It is open to WOs, NCOs and men for 'distinguished service in the field'. The ribbon is crimson, 1 in wide with a central blue stripe. The Military Cross was instituted by Royal Warrant dated 28 December 1914, in recognition of distinguished, gallant and meritorious services. It was open to commissioned officers of the rank of captain and below, and to WOs of 'Our Army, Our Indian or Colonial Military Forces and to foreign officers of equivalent rank who have been associated with Our Army'. It could also be awarded to members of the other Services when operating with the Army. In 1995 it was decided to drop the awarding of the Military Medal and to open the award of the Military Cross to all ranks. Its ribbon is white with a central purple stripe.

WO2 'Skip' Rycroft, 6 RTR, wearing his DCM and MM. The nickname 'Skipper' alludes to the time he spent at sea before joining the Army. (A.W. Green)

Francis Arthur 'Skipper' Rycroft joined the RTC in late 1935. He was given this nickname because, before joining the Army, he had served as a deckhand on the Argentine beef ships which sailed in and out of Liverpool. Skipper joined the 6th in early 1937 in Egypt, where they had been serving since their formation in 1933 from 3 and 5 ACC. The regiment became one of the founding units of 7 Armd Div (the famous 'Desert Rats'), which sprang from the 'Mobile Force' – sometimes unkindly called the 'Mobile Farce', because of its *ad hoc*, outdated vehicles and equipment! At the time (1938) 6 RTR was equipped with old medium and light tanks and the regiment was used mainly for internal security operations in Cairo. However, by the time the war began some new equipment had been received and they eventually became part of 4 Armd Bde, together with 7 Hussars and 2 RTR. Rycroft was by then a sergeant, serving as the CO's



Squad 446 at Bovington (May 1935–Aug 1936). 'Skip' is on the left of the middle (standing) row. He clearly looks older than most of the other squad members. (Phil Tocock)

operator and thus regimental signals sergeant, responsible, along with the regimental signals officer, for the communications in the regiment. Maj Dick Murrell, a friend of Rycroft, who had joined the regiment just before him, recalled those days thus:

'My earliest recollections of him were at the start of the war, when the 6th were first equipped with A-9 cruiser tanks[6] and the No. 9 Wireless Set. "Conky" Harland (who would go on to win the Distinguished Conduct Medal) was the Commanding Officer's driver and Skipper was Signals Sergeant. We spent a lot of time on netting procedure (tuning in the wirelesses so that everyone in the regiment could hear and talk to each other) and one morning Conky came on the air saying: "If you can hear me report loud and clear, but if you can't hear me then wave your wireless mast!" '

Sgt Rycroft's expertise as the CO's operator earned him a special comment in the 6th's War Diary and the RTR Regimental History, when, during a violent sandstorm, coupled with heavy enemy shelling in the regiment's early days in the Western Desert, while taking part in the assault on the Italian positions at Sidi Barrani in December 1940: 'a high standard of wireless communications ensured control, enabling the regiment to maintain its course and reach its objective on time . . . reflecting great credit on Capt J.D. Aldridge, the officer responsible for the rear link, on all wireless operators on the regimental frequency and, in

RQMS 'Skip' Rycroft seen here on the right (rear) of a group of 6 RTR WOs and sergeants in their tented mess, while out of action in North Africa. (Maj F. Ord)

particular, on Sergeant F. Rycroft the Commanding Officer's operator'.[7]

Another mate of Skipper gave me this little pen-picture of his friend: 'Skip was of medium build, with piercing eyes that seemed to bore right through you. Outspoken, he would still listen quietly to what you had to say and respect your opinion. A popular, efficient NCO, he was a good friend to me and many others in the Sixth.' Another friend told me that on more than one moonless night march Skip's navigational prowess from his Merchant Navy days was put to good use, guiding the entire regiment across the desert – on one occasion over 53 miles – without any difficulty.

As part of Gen O'Connor's Western Desert Force, the 6th played a significant part in the defeat of the Tenth Italian Army and then faced Rommel and his Afrika Korps. The 6th was for a time in Tobruk, minus its tanks, being employed as 'mounted infantry', but was later shipped back to Egypt to be reconstituted and re-equipped – eventually getting the first of the newly arrived Mark VI Crusader cruiser tanks, collecting them from Alexandria. Thus equipped, the regiment took part in violent tank battles, first in Operation 'Battleaxe' (June 1941), then Operation 'Crusader' (July–December 1941). During this latter operation Skip Rycroft was awarded his first decoration – the Military Medal. The citation reads: 'During the actions on 10th and 11th December, Sgt Rycroft, on two occasions, had to leave his tank under heavy fire, on the first occasion to put out a fire which had started at the rear of his tank and on the second to assist and supervise the towing away of another tank. His coolness and devotion to duty in the face of the enemy and the complete disregard for his own personal safety were a fine example to all ranks.' The award of the Military Medal was approved by Gen Wavell, then C-in-C Middle East. Capt Mick Merry MM, who had served as a sergeant with Rycroft, told me of an incident he recalled during the violent tank battles in the Sidi Rezegh area.

'On 20th November 1941 I had commanded – and been shot out of – three tanks before breakfast time. By the following day, we had lost all contact with RHQ, the remnants of the 6th being commanded by the then Brig 'Jock' Campbell (later to win the Victoria Cross and command 7 Armd Div) and led into battle by Campbell in his staff car! I was again knocked out and the battle moved on, leaving me with the remains of my crew in the middle of the battlefield. Suddenly, a 15cwt truck approached us at high speed. It pulled up beside us and "Skip" Rycroft leaned out of the co-driver's seat and said to me: "I'm only picking up passengers for Cairo!" We climbed aboard and rejoined what was left of the Sixth – just seven tanks of which three were on tow.'

The 6th, along with all the rest of the Eighth Army, fought some difficult battles over the next few months as it first held the initiative and pushed Rommel back, only to have the Axis forces strike back in the Gazala battles (already mentioned) of June 1942, culminating in the British withdrawal all the way back to the El Alamein–Alam Halfa–Ruweisat Ridge positions, where the regiment dug in and stubbornly resisted all Rommel's attacks to break through and capture Cairo and the Suez Canal. 6 RTR was now equipped with American M3 Grant medium tanks, which were armed with both a highly effective 75-mm gun in a side sponson and a 37-mm in a small turret. The 75-mm had come as quite a shock to the Germans when they first came up against its firepower earlier in the month. During this defensive battle, Acting Sqn Sgt Maj Rycroft MM was awarded with an immediate Distinguished Conduct Medal for his bravery on 22 June 1942. Rycroft had discovered the existence of an enemy strongpoint which had been established within 600 yd of the British forward positions south of the Ruweisat Ridge. It consisted of tanks, anti-tank guns and machine-guns, all hidden beneath the edge of a depression and protected by wire and minefields. He went forward on foot and mapped all the enemy defences. Then he returned and personally directed the fire of the tanks of the regiment on to the various targets, while standing completely exposed on the top of his tank. In the course of this action he was wounded, but returned into action immediately his wounds had been treated. The action resulted in the destruction of eight German PzKpfw III and IV tanks and several guns, without any loss to the regiment. 'This success', his citation ends, 'was due in great measure to the resource and disregard of personal safety by this Warrant Officer.' It was approved by Gen Auchinleck, who had by then taken over as C-in-C Middle East from Gen Wavell. Soon after this battle Sqn Sgt Maj Rycroft was commissioned in the field – his CO wanted him to go to OCTU, but he had refused, although he was happy to become an officer.

After commissioning, Rycroft joined 46 RTR, a TA tank battalion, which had originally been the Liverpool Welsh. 46 RTR was then part of 23 Armd Bde (originally the 23rd Army Tank Brigade), together with two other RTR TA battalions – the 40th and 50th. 23 Armd Bde had only arrived in Egypt from England on 6 July 1942, after exactly two months at sea. They were equipped with Valentines, while each squadron headquarters had two old Matildas as close support tanks. Ten days later they were moved up behind the

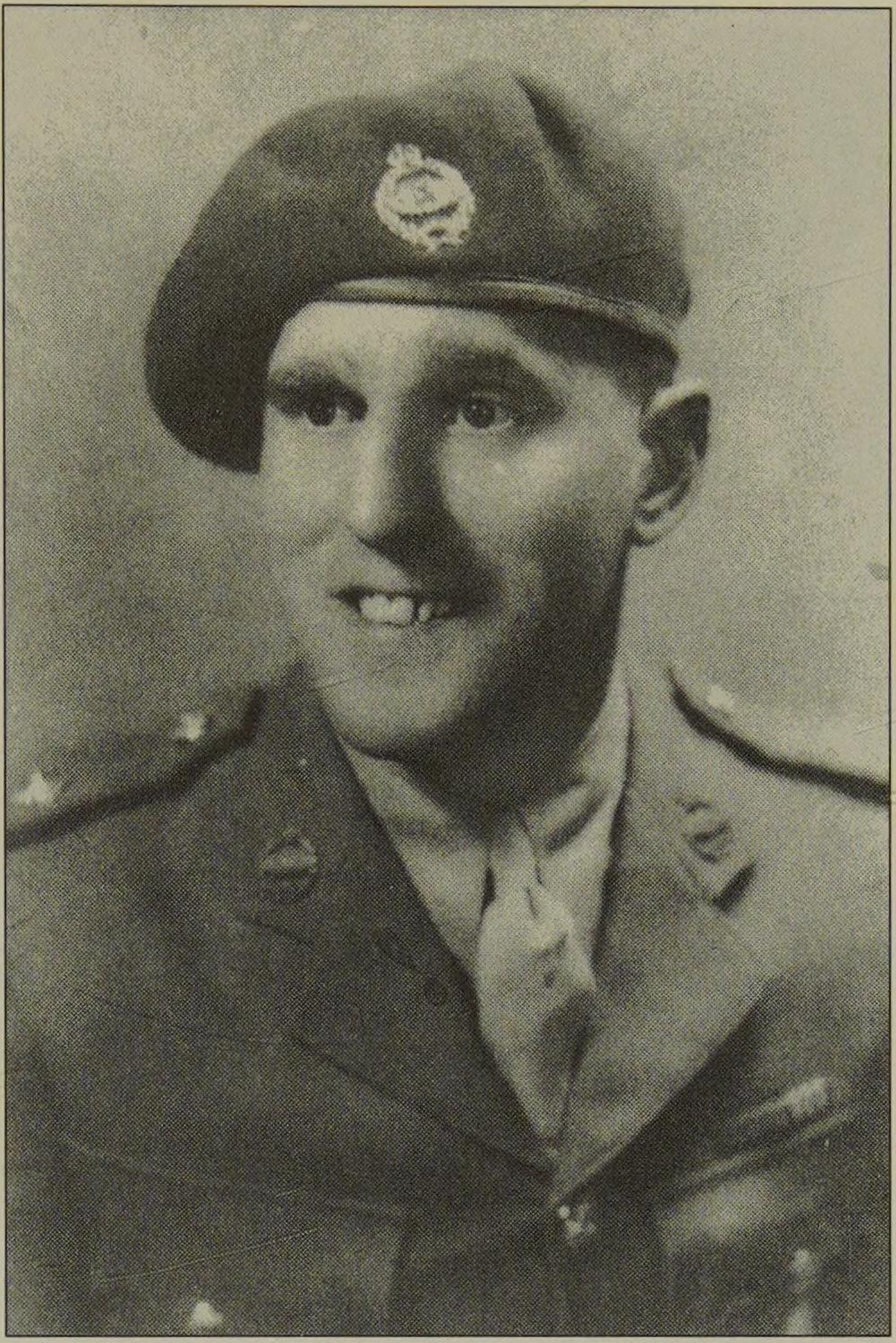
The American-built Grant M3 medium tank made a major impression on the desert battles with its powerful 75-mm gun in a side sponson (the turret contained a 37-mm). 6 RTR received its Grants in mid-1942 and Rommel made special reference to the effectiveness of the new tanks in his diary. (Tank Museum)

Alamein line, despite the fact that they had had no time for desert training and many of their radios had not been modified for hot climates. Nevertheless, they would all fight bravely in the first battle of El Alamein, taking part in what was described by some onlookers as being 'a real Balaclava charge', during which the 46th lost many tanks (its tank crew losses were 13 officers and 49 other ranks out of a total of 160 – just under one-third of its crewmen), its CO having to change tanks no less than three times. However, the men had no criticisms of their old Valentine tanks, which had performed well and kept out all calibres and types of enemy anti-tank rounds with the exception of the dreaded 88-mm. They had also impressed the New Zealanders they were supporting, whose commander commented: 'We were delighted with their refreshing keenness and their eagerness to fight.'

Alama Halfa came next, followed by the critical second battle of El Alamein in which, once again, they suffered many casualties – by the end of October only nine out of forty-nine tanks were fit for further operations, while the CO and all three squadron commanders were included in the list of casualties. As a result, they had to combine with 50 RTR, who had only about a single squadron's strength. The combined regiment took part in the last phase of the El Alamein battle; this was the last occasion on which 46 RTR was in action in North Africa, being left behind in Egypt to refit. Their next operation would be the invasion of Sicily, before which they replaced their Valentines with diesel-engined Shermans. Sicily was followed by Italy where, as part of 4 Armd Bde, 46 RTR would be hotly engaged in fierce fighting around San Salvo on the eastern coast. It was here that Skip Rycroft, now a temporary captain and 2IC of A Squadron, would be recommended for an immediate Distinguished Service Order, but was awarded with an immediate Military Cross instead.

Capt Rycroft's squadron was supporting 5 Buffs, attacking the San Salvo ridge on 3 November 1943. At 0730 hrs his OC's tank was hit and the squadron commander wounded. Capt Rycroft immediately took command and led the squadron on to the objective ahead of the infantry, despite leaving six tanks bogged on the way. He then fought on the objective from 0745 to 1830 hrs, skilfully manoeuvring his tanks on the reverse slopes of the ridge and among the scattered buildings on the outskirts of the town. Finally he was ordered to rally back when darkness fell. His citation records that:

'Throughout the day his squadron remained on the objective fighting anti-tank guns, SP guns and enemy tanks on ground which was completely dominated from the Vineyard Hill feature, the whole time in possession of the enemy. At 1600 hrs an enemy counter-attack came in from the right flank supported by 12 tanks. Capt Rycroft's squadron, which had then only seven battleworthy tanks left, formed to a flank and was entirely instrumental in beating off the enemy attack. Throughout the period of this action, lasting 13 hours, Capt Rycroft displayed personal courage and gallantry of the highest order and fought his squadron with all conditions of terrain and visibility in the enemy's favour and it was entirely an action of tanks against enemy tanks, SP guns and anti-tank guns. Capt Rycroft's own tank accounted for at least two enemy tanks and damaged several others.'



Maj 'Skip' Rycroft MC, DCM, MM photographed while still a captain in 46 RTR. He was later promoted to major and was commanding a squadron when he was killed. (Tank Museum)

The way to the River Sangro was now open, and by 7 November all enemy forces had been cleared from south of the river.

Soon after this action 46 RTR handed over its remaining tanks to 40 and 50 RTR, then left to take part in the US Fifth Army's landing at Anzio. Having drawn up new tanks, they were first sent to the Salerno area where their tanks were waterproofed and they practised assault landings. The actual Anzio landings by the mixed US/British VI Corps of Fifth Army took place on the Anzio and adjoining Nettuno beaches against minimal opposition on 22 January 1944, but then everything went dreadfully wrong as the corps commander, Maj Gen Lucas, vacillated while the Germans

Anzio landing. These sharpshooters are part of the crew of a 46 RTR Sherman, whose breakfast was rudely interrupted by an enemy aircraft strafing their position – so they promptly returned fire! (IWM – NA 11438)

reacted swiftly to seal off the beachhead into what quickly became known as 'Hell's Half-Acre'. Churchill commented, 'I had hoped we were hurling a wildcat onto the shore, but all we had got was a stranded whale!' By 29 February there was a complete stalemate and both sides reverted to First World War-type trench warfare. The only British tank unit permanently supporting the two infantry divisions during the four months of the Anzio beachhead was 46 RTR, who were thus involved in innumerable actions and sustained many casualties. Maj Rycroft was now commanding B Squadron, and in the first month none of the squadrons were out of action for more than a few hours at a time, all being constantly involved in fierce actions. Within this first month the Allies lost over 19,000 men and it would take many weeks of 'hard pounding' before a break-out could be achieved towards the end of May.

One of the many casualties in 46 RTR was the CO, Eric Offord, who was seriously wounded on 8 February; another was Skip Rycroft, who was killed four days earlier on 4 February 1944. The 46 RTR War Diary for February 1944 reports that on the evening of the 3rd there had been very heavy enemy shellfire all along the front, followed by a strong enemy counter-attack on both flanks of the Campoleone salient, the regiment standing to at 0030 hrs on the 4th. At 0430 hrs B Squadron was ordered to advance at first light to restore the Irish Guards to positions lost during the night. They advanced and soon discovered that the enemy was also in the positions which had been occupied by 6 Gordons. B Sqn took nearly 100 enemy prisoner and knocked out one PzKpfw IV and one anti-tank gun; however, by the end of the operation, B Sqn had only five operational tanks left. The rest of the regiment, less B Sqn, was then ordered into battle and at 1130 hrs they were ordered to support 1 London Scottish in an attack designed to allow 3 Inf Bde troops in the Campoleone area to withdraw.

During the subsequent battle, Recce Troop guarded the right flank. By 1730 hrs all the 3 Bde troops had been safely withdrawn, but the tanks were not released from their forward positions until 2230 hrs. Regimental fatalities that day included both Maj Rycroft and Capt R.K. Robertson, who had been commanding Recce Troop. 46 RTR's History comments that the contribution made by the regiment to the Anzio operation as a whole was the largest and possibly the most important which it was called upon to make during the war: 'The almost complete lack of cover on the ground over which most of the actions were fought as well as the frequent calls which were made for us to help our hard-pressed infantry resulted in an inevitable and serious list of casualties.' Skip Rycroft was one of these brave men, who gave his life in the cause of freedom. His medals are now on show at the Tank Museum, Bovington.

A COMMONWEALTH TANK ACE

BRIG J.M. BARLOW

Col Douglas Gray, President of the Indian Cavalry Officers Association in the UK, has told me about some of the many amazingly brave characters who served in the Indian cavalry pre-war and during the Second World War. One such officer was John Mount 'Jack' Barlow, who won a Military Cross in North Africa and a Distinguished Service Order in Burma. Here is his story.

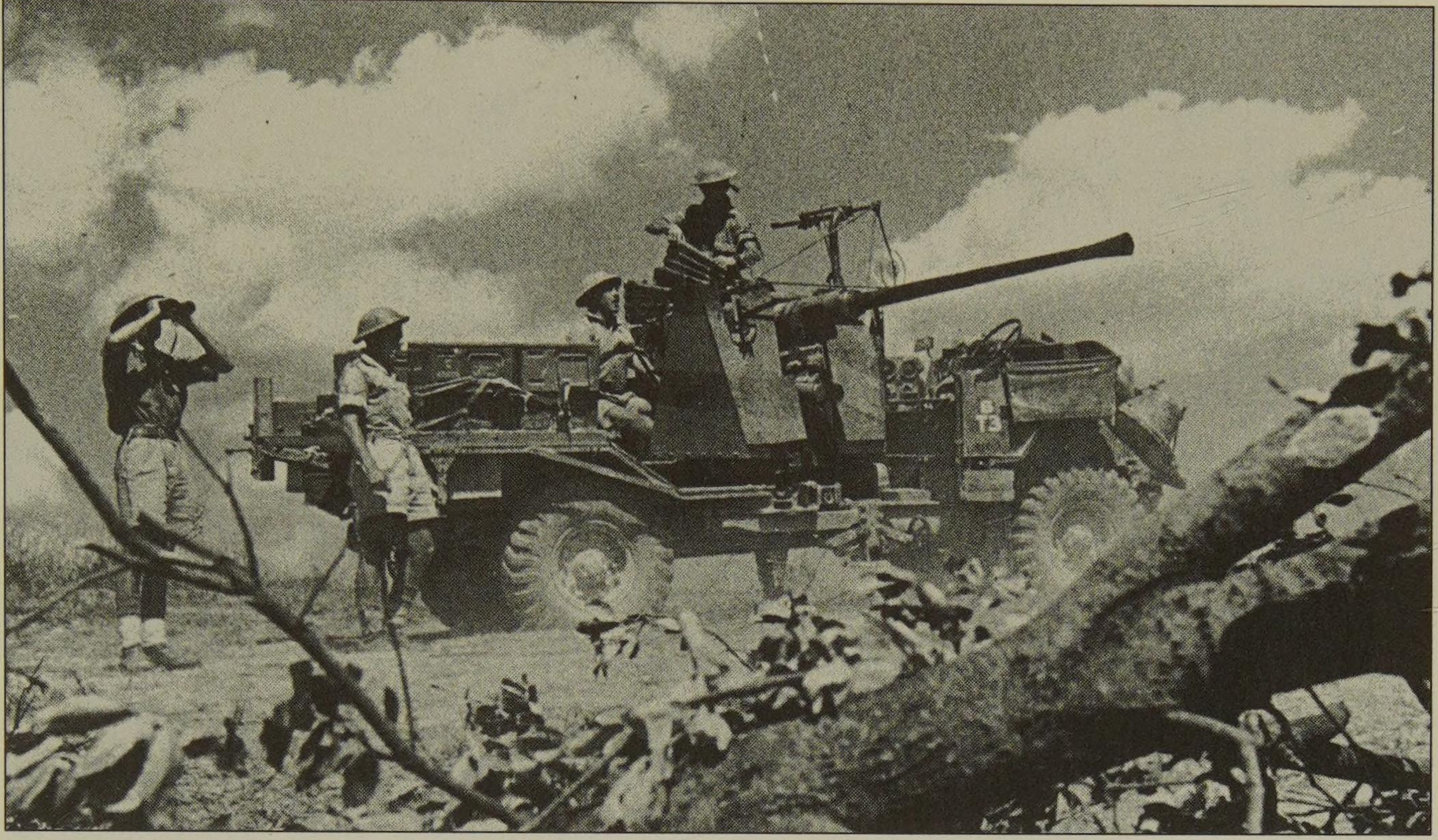
Brig (Retd) Jack Barlow DSO, MC. (7th Light Cavalry and Lancer International)

Just as in the First World War, the great nations of the British Commonwealth played an enormous part in the Allied fight against the Axis, India in particular giving of its manpower more generously than any other Dominion, producing the world's largest all-volunteer army in history. Although mechanization had begun before the war, the Indian Armoured Corps (IAC) was not formed until 1 May 1941. Few cavalry regiments received their AFVs before 1941, while others had to make do with 15-cwt trucks as their means of battle transport in their initial actions. One such regiment was the 18th King Edward VII's Own (KEO) Cavalry, which was part of the 3rd Indian Motor Brigade (3 Mot Bde), who went overseas to the Western Desert in January 1941 and who, at the beginning of April, fought their first major action at Mechili in Cyrenaica. The brigade comprised 2nd Royal Lancers, 11th Prince Albert's Own Cavalry and the 18th KEO Lancers. Two of the regiments had only given up their horses six months before and none had been trained in desert warfare. All had had to supply drafts of trained men to other units so were short of manpower, and in addition were 40 per cent below strength in Light Machine Guns (LMGs), while each regiment had only *one* Boys anti-tank rifle instead of forty-two! In fact, only one squadron of 18 KEO Cavalry was involved in the Mechili action, the remainder of the regiment being in Tobruk, some 100 miles to the east. The squadron involved was A Sqn, and its commander was a remarkable extrovert character named Jack Barlow. A pre-war Indian Army cavalryman, he was brave, almost to the point of foolhardiness. Indeed, a great friend of his told me that Barlow became his 'hero' pre-war and went on to explain:

'It is a fact that several of the accepted "great" and brave leaders on the battlefield were men who, in peace-time, expended their energy and their bravery in acts which were, at the time, considered foolhardy or even reckless and stupid. Certainly Jack Barlow was such a man – for nothing daunted him and he faced any danger as though it did not exist. For instance, I have seen him face a wounded boar on foot – when he had been thrown and his horse had galloped off – and kill it with his spear. I saw him wade across a river which was known to be inhabited by crocodiles which had taken human beings. He was merciless if he was after a boar and, despite the heat or the late hour, he would go on and on until he killed it.'

Barlow's extrovert 'get up and go' would stand him in good stead, when British and Indian forces found themselves surrounded by Gen Erwin Rommel's DAK during the latter's first spectacular advance into Cyrenaica, which had begun, totally unexpectedly for everyone except Rommel, on 31 March 1941, when the 'Desert Fox' had blithely ignored German High Command's orders to remain on the defensive and had launched his tiny force with Blitzkrieg-like impetuosity at the weakened and complacent British.[8] 'We have been attacking since the 31st with dazzling success', Rommel wrote to his wife on 3 April. 'There'll be consternation amongst our masters in Tripoli and Rome, perhaps in Berlin too. I took the risk against all orders and instructions because the opportunity seemed favourable . . . We've already reached our first objective, which we weren't supposed to get to until the end of May. The British are falling over each other to get away . . . You will understand that I can't sleep for happiness.'

Mechili was well to the south of Derna, in the middle of a vast open desert plain. However, its well, small fort and converging tracks made it an important centre of desert communications, especially as the British now had a supply depot there. On 3 April 3 Mot Bde was ordered to send a squadron to secure



At Mechili, the Australians had a small number of these vehicle-mounted Bofors 40-mm AA, and used them in the anti-tank role. (Tank Museum)

Mechili and another to secure Gadd-el-Ahmar to the south-east. B Sqn 2 Royal Lancers, under Maj Rajendra Singh, went to Mechili, while Maj Jack Barlow's A Sqn 18 Cavalry went to Gadd-el-Ahmar. Then later on the same day the commander of 3 Mot Bde was ordered to seize and hold Mechili, in order to provide a firm base for the British HQ 2 Armd Div, which had also been ordered to withdraw to that area. As it turned out, the brigade was not complete – 18 Cavalry (less A Sqn) had been left to garrison Tobruk – while certain other troops (e.g. some Australian Bofors light AA/anti-tank gun troops, plus some elements of HQ 2 Armd Div) were present, although with few fighting troops. By the time the Germans had closed on Mechili, those who were trapped by them were a very mixed bunch. Nevertheless, Brig Vaughan's lightly equipped motor brigade refused to be overawed by the tanks of the DAK and, having fought off all the German efforts to capture the position, despite being surrounded and heavily shelled, they continued to reject every German demand to surrender – the last one being signed personally by Rommel. It was eventually decided that the force would attempt to break out in order to escort HQ 2 Armd Div safely to El Adem. The break-out plan took the form of moving in a mobile 'box' as shown over.

At first light Jack Barlow's squadron was to rush the enemy on 'Gun Ridge' (a feature 3½ km to the east of Mechili from which some dozen enemy guns had been shelling the defences heavily). Their assault was to be supported by the one and only tank in the garrison and by one troop of the Bofors anti-tank guns. The main column would then follow on through the gap created by the advance guard, protected on both flanks and at the rear by further guards. The rear guard would have

Advance Guard
A Sqn 18 Cav
one tp Bofors atk
one cruiser tank

Left flank Guard
PAVO Cav – one sqn
one tp Bofors atk

Main Body
Bde HQ + ancillary tps
HQ 2 Armd Div
rest of Bde vehs
one tp Bofors

Right flank Guard
one sqn PAVO Cav
one tp Bofors atk

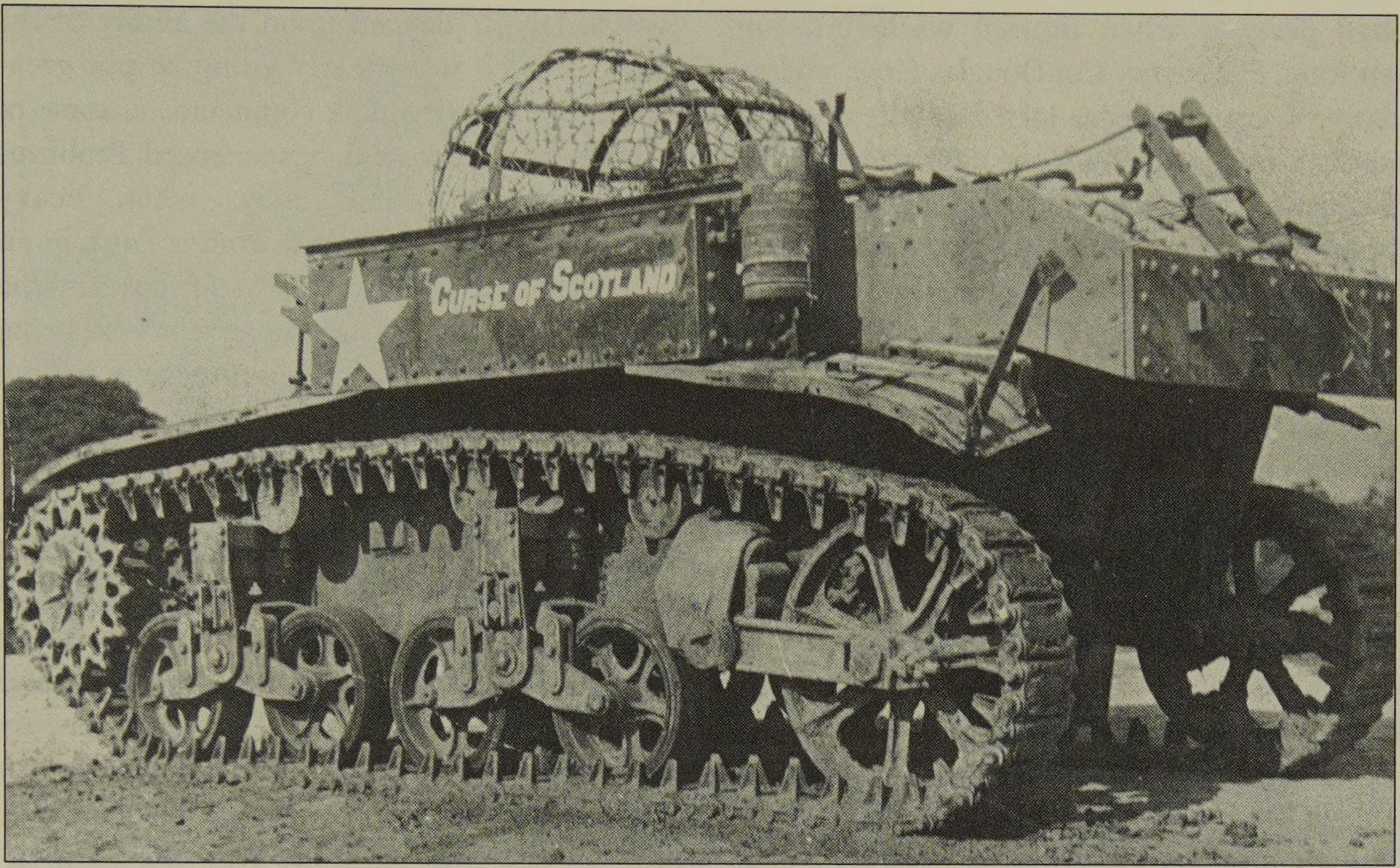
Rear Guard
2nd Royal Lancers
one tp Bofors atk

(Source: *The Indian Armour* by Maj Gen Gurcharn Singh Sandhu)

to hold the defences until the main body got through and then follow up the rest of the force. These orders were passed during the night and all preparations were made during the hours of darkness, so that by dawn all was ready.

Unfortunately, when dawn came neither the cruiser tank nor the Australian Bofors gun troop had arrived to join the advance guard. By 0630 hrs Maj Barlow decided he could not wait any longer, so attacked with just his squadron of Jats, charging the enemy with their 15-cwt trucks, with him standing up in his truck, controlling their movements with a large blue flag. The audacity of the attack caught the enemy completely by surprise and the squadron managed to get behind the enemy gun positions, with minimal casualties. Dismounting, the Jats charged the guns with fixed bayonets and captured all of them, together with a company of enemy infantry, losing just two killed and fifteen wounded. Just then, a large column of vehicles was seen approaching 'Gun Ridge', so Barlow detached his 2IC plus two troops of his Jats to deal with them. Fortunately the approaching 'enemy' turned out to be vehicles of 2 Armd Div on the wrong track. Jack Barlow loaded up as many prisoners as he could carry, putting them under the charge of the squadron cooks, and proceeded onwards to safety.

During the assault on the gun positions, Sowar (Trooper) Abhey Singh had his left arm blown off below the elbow but continued to charge with his troop. He was recommended for the Victoria Cross, but was eventually awarded an Indian Distinguished Service Medal (IDSM), as was another Sowar. A Viceroy Commissioned Officer (VCO) received an Indian Order of Merit (IOM), while Jack Barlow was awarded the Military Cross. It was, as the Brigade Commander wrote, 'a most gallant performance'. Unfortunately HQ 2 Armd Div had been too late in moving from Mechili and was forced to surrender, the GOC (Maj Gen Gambier-Parry) being captured in his command vehicle – that made a total of three British generals captured in the area, O'Connor and Neame having driven into the



The *Curse of Scotland*, Jack Barlow's old command Stuart light tank, which his 7 Light Cav inherited from 7 Hussars – the only tank which the British cavalry regiment had managed to get across the River Chindwin during the withdrawal from Burma in 1942. (Tank Museum)

advancing German columns the previous evening, when their driver lost his way and they were both fast asleep.

The delay inflicted on the enemy by the defence of Mechili and the subsequent spirited actions of 3 Mot Bde undoubtedly delayed Rommel, thus preventing him from reaching Tobruk before the Australians could get there, garrison that vital fortress and hold it for the epic first siege, so the Mechili operation and the bravery of the ill-equipped Indian cavalry regiments had a deeper significance than might appear at first glance. To quote from *The Tiger Strikes*: 'At about 6.50 a.m. in the half light the squadron under command of Capt J.M. Barlow charged the guns from the north-east. The assault, as hopeless it must have seemed as the charge of the Light Brigade at Balaclava, roared in . . . the 24 trucks drove straight down in line on the guns and the men went in with the bayonet. The gun crews threw up their hands. . . . The charge of the 18th Cavalry at Mechili takes its place with the other famous and desperate charges in history.'

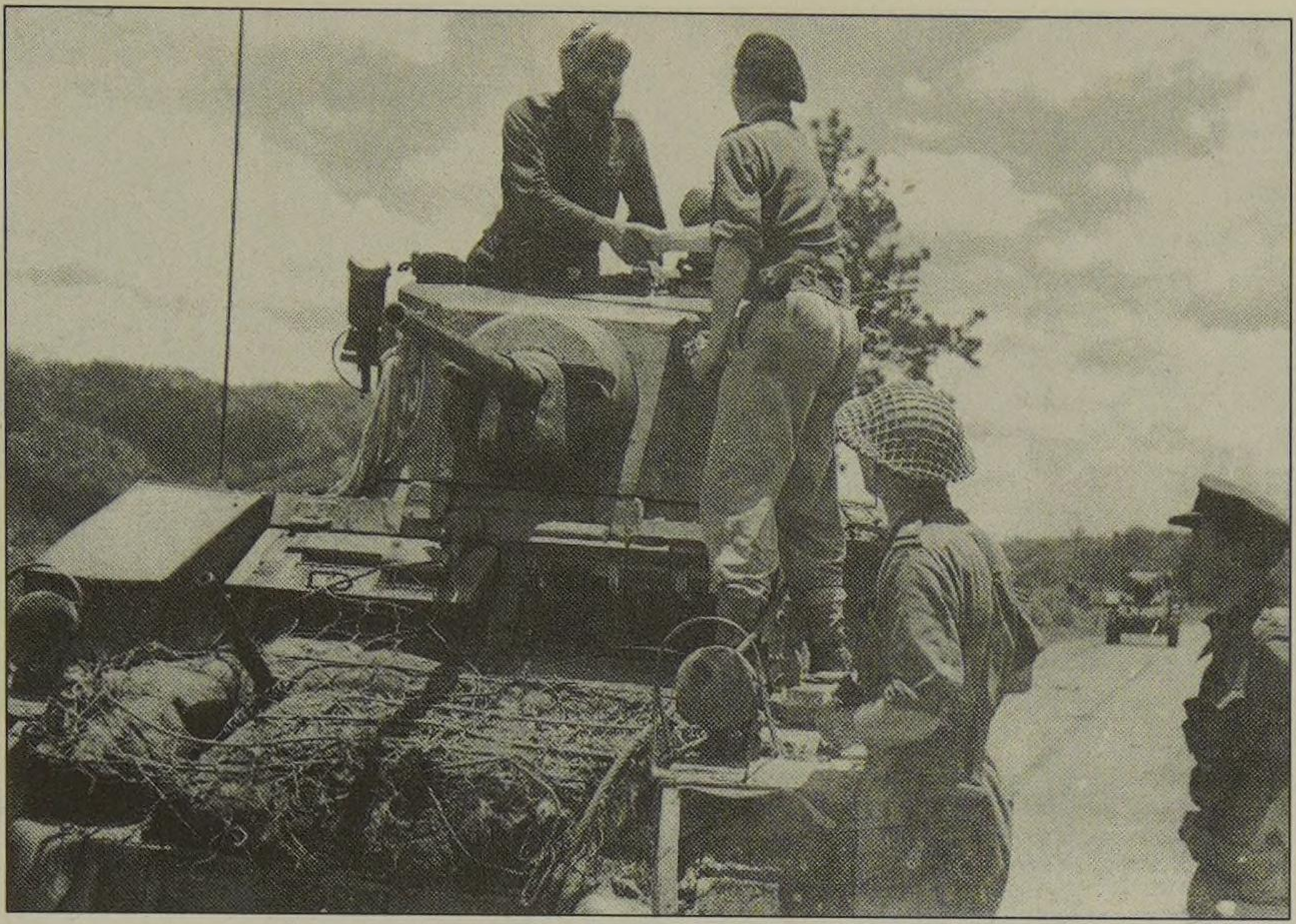
Jack Barlow would later transfer to the 7th Light Cavalry, initially commanding A Sqn in Burma. Then, in late March 1944, he was promoted to lieutenant colonel to command the regiment which was at the time part of XXXIII Corps, equipped with light tanks of American origin (Stuart IIIs). His command tank, which he christened *Curse of Scotland*, had an interesting history as it had been the one and only tank[9] which 7 Armd Bde had managed to get across the River Chindwin in their epic retreat out of Burma in May 1942. Jack Barlow would continue to display the same sang-froid about being wounded as he had pre-war when injured while out pig-sticking. His friend, Col Douglas Gray, told me how on one occasion Jack had attempted to spear a boar crossing from right to left across his front and his horse had tripped over the spear and fallen. Having a lead weight in its handle the spear point came up and went straight through Jack's left boot, pinning him within his stirrup. Luckily the horse stood quietly, as Jack was now on the ground but his speared foot was pinned to the saddle.

'We managed to keep him and the horse steady until a small saw was brought from a native village and the bamboo shaft was cut away on either side of the stirrup and Jack was freed, but with four inches of the spear left sticking in his foot. He was carried to the horse-brake, which in those car-less days used to drive to the pig-sticking meets, and then he insisted on driving it back the 15-odd miles to the hospital at Jhansi. Of course, to kill the pain we gave him some whisky, but Jack took more than was good for him – and he could drink most men under the table – driving the brake at a furious gallop and shouting: "Hat Jao!" (Get out of the way!) at any wretched bullock cart in his way. Miraculously, the spear had parted the bones of his foot without breaking any of them and, within three weeks, he was pig-sticking again as though nothing had happened to him.'

In March 1945 Jack Barlow was awarded an immediate Distinguished Service Order for his gallantry and leadership of the 7th Light Cavalry in Burma, during some very heavy fighting in the 20th Indian Division bridgehead across the Irrawady to the west of Mandalay. His citation tells how a tank task force comprising mostly the 7th Light Cavalry and known as 'BARCOL' after him, was supporting an attack by the 9th/12th Frontier Force Regiment on 28 February on the villages of Yezin and Inya. The success of this operation would largely depend upon the ability of the tanks, which was clearly going to put great strain upon all the tank commanders, some of whom were young and inexperienced. Problems arose almost immediately, when heavy resistance was encountered from a flank in an area where it was extremely difficult for the tanks to operate. Little movement was being made and there was undoubtedly a feeling among some of the junior tank commanders that further progress was impossible.

Col Jack Barlow, at great risk to himself, went forward to direct operations personally. His calm determination quickly inspired all ranks with confidence and through his efforts the enemy flank position was dealt with and the advance continued. The main enemy positions were protected by a *chaung* (an inland waterway) which, except for one place, was an anti-tank obstacle. This one crossing-place was very heavily defended and thus presented a very difficult problem for the tanks. Col Barlow once again went forward to direct operations. Thanks once more to his skilful direction, again at great personal risk, the tanks were able to cross the obstacle and give the necessary support to the infantry. During the last phase of the operations on 1 March, the CO of the Gurkha battalion leading the advance, his artillery adviser, and the leading company commander were killed by Japanese shellfire, these events naturally halting the attack in its tracks. Col Jack Barlow, who was on the spot, immediately took charge and thanks once again to his leadership the attack was rapidly continued and all the objectives captured. An officer of the 7th Cavalry described the fighting during this period thus:

'Heavy fire from the elephant grass prevented the Gurkhas from consolidating outside the village and we spent the night with them at the southern end of the village. We were attacked from 2130 hrs onwards by "Banzai!"-yelling



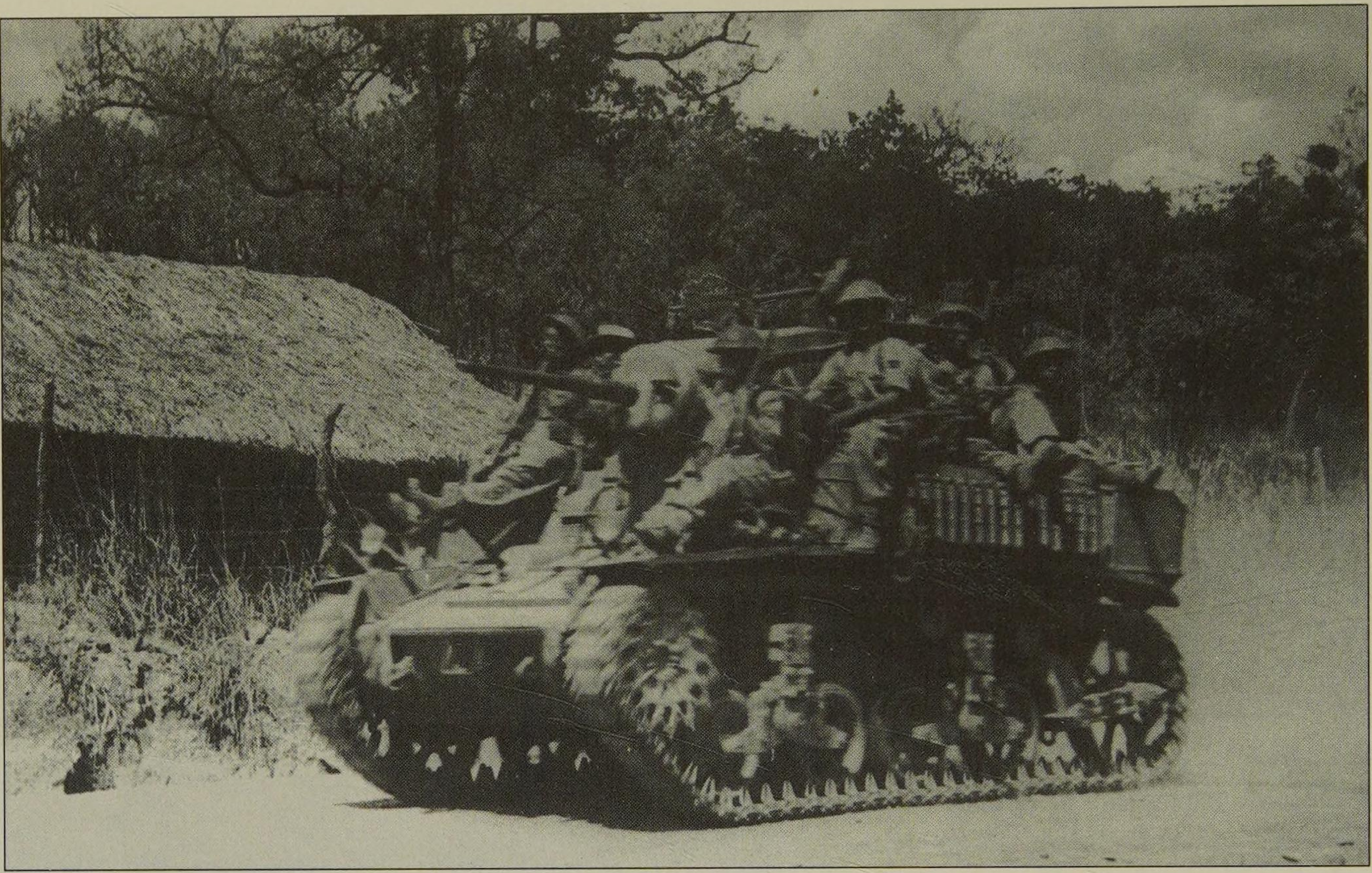
The link-up of A Coy 2nd Durham Light Infantry with 7 Light Cav on the Imphal–Kohima road, 22 June 1944. (IWM – IND 4888)

7 Light Cav crossing the Irrawaddy river during the Fourteenth Army's highly successful advance through Burma. The river was 2,000 yd wide and fast flowing. (IWM – IND 4461)

Japs and this, combined with the unforgettable stench of rotting carcasses inside their positions, made a very grim night of it. The morning light welcome, as always, after a bad night, rose on the bodies of over fifty Japs on the wire and not very short of some of our positions.'

Throughout the period, the 7th was inspired as always by Col Jack Barlow's leadership and many thought that he should have been awarded a Victoria Cross. His DSO citation ends with the words: 'Barlow has shown conspicuous gallantry and leadership throughout the very heavy fighting in the 20th Division bridgehead.' It is signed by Brig S. Greeves commanding the 80th Infantry Brigade, and approved by the C-in-C Allied Land Forces, South East Asia.

Not long afterwards Lt Col Barlow was in action again, commanding an independent battle group (again known as BARCOL), leading the 20th Indian Division in a major break-out to the south to disrupt communications, destroy enemy forces encountered and link up with IV Corps at Meiktila. The break-out, which began on 19 March, was a dazzling success, which, in the



7 Light Cav Stuarts, festooned with heavily armed Gurkhas, move along the Tiddim Road looking for Japanese rearguards. (IWM – MEM 1435)

Slim's own words, was ' . . . brilliantly handled and by its weight and speed caught the enemy completely on the wrong foot, effectively denying him a major axis of withdrawal and thus forcing him to direct the majority of his forces well to the east of Meiktila'. Before BARCOL was disbanded it received a special commendation from the corps commander.

After the war, Brig Jack Barlow DSO, MC retired to the UK and joined a firm of cattle auctioneers in Kent near his home. He died in the 1970s, but will long be remembered by many Indian cavalry officers as a brave and unique character.

NOTES

1. The nickname was an adaptation of 'Fairy Feet', although, as the photographs show, he did once wear fairy garb during a pre-war Cambrai Day party in the regiment!
2. The 'Boxes' which formed the Gazala Line comprised a series of defensive positions containing brigade-sized formations, with their own supply dumps, heavily protected with wire and minefields.
3. In order to qualify for the *Caterpillar Club* one must leave an aircraft in an emergency, using an Irving-designed parachute. The little gold caterpillar awarded to successful escapees has red eyes if the aircraft caught fire and green if it ditched in the sea!
4. In April 1939 the newly mechanized Cavalry regiments combined with the RTC battalions to form the Royal Armoured Corps (RAC) and the RTC became the RTR.
5. During a visit to the Tank Museum some years ago, Buck told me of one radio message that he didn't mean to send that day. They had just turned a corner and he found himself faced with three enemy SP guns and some

enemy vehicles. In his haste to withdraw quickly the driver (Tpr Matthews – known for obvious reasons as 'Jessie') stalled the engine. Kite shouted down 'My God Jessie, what a place to stop for a piss!', without realizing that the radio was on as well as his intercom – so everyone on the net heard him!

6. The A9 Cruiser tank Mk I was a six-man tank weighing under 13 tons, so its armour was paper thin (only 6–14 mm), and armed with the inevitable 2-pdr (except for the Close Support version, which mounted a 3.7-in howitzer).

7. Quoted in *The Tanks, Volume 2* by Basil Liddell-Hart.

8. To be fair to the British, the forces that had so convincingly routed the Tenth Italian Army at Beda Fomm in early February, had been seriously weakened by the withdrawal of troops to go to Greece. In addition, the newly arrived 'green' 2 Armd Div had taken the place of the desert-wise 7 Armd Div, so that they could rest and refit. So Rommel faced a '2nd XI'.

9. The *Curse of Scotland* is the name given to the nine of diamonds, and has a variety of possible derivations – clearly Jack Barlow was alluding to the Stuarts, but the connection is unclear. This particular command tank was eventually brought back to India, and in 1949 it was presented to the Indian Military Academy at Dehra Dun as a 7th Light Cavalry trophy.

RED ARMY AND POLISH ACES

RED ARMY ACES

The Red Army did not consider killing tanks to be in itself a mark of heroism, because it did not look upon the tank as being a fighting machine whose primary function was to kill other tanks. Instead, the *raison d'être* of the tank was the violent prosecution of the offensive with all the speed and terror possible, thanks to its inherent characteristics of firepower, protection and mobility. The men whom the Soviets considered to be the real 'tank aces' therefore, were those who killed hundreds of 'Hitlerists' in battle, no matter what their arm or service, be they infantrymen on their feet, artillerymen, or tank and vehicle crewmen. This was, they considered, preferable to engaging in long tank versus tank battles, resulting in the destruction of just a few enemy tanks, each containing only a handful of their hated foes. Of course, there were tank 'aces' in the recognized meaning of the word, some of whom were named in an article 'The Ace Tankers: Who Are They?', by Anatoli Dokuchayev, which appeared in *Krasnaya Zvezda* some years ago. Pride of place in the article was given to a young T-34 commander, who had served in Col Katukov's 4th Tank Brigade and had been killed in action.

LT D. LAVRINENKO

In the autumn of 1941 this young Soviet tank hero was commanding a T-34 medium tank platoon in the 4th Tank Brigade (4 Tk Bde), which was then under the command of Col Mikhail Katukov, one of the Red Army's greatest tank commanders, who went on to lead the 1st Guards Tank Army from January 1943 to the end of the war, including the period when it was one of the first Red Army formations into Berlin. 4 Tk Bde was formed at Prudboi on the Don, near Stalingrad. On paper the establishment of the brigade was 93 tanks, but they actually had only 60 (some other newly formed brigades had as few as 15!). However, being near to the Stalingrad Tractor Works, which was the primary producer of the new T-34 medium tank, the brigade was fortunate enough to receive twenty-two of the new T-34 Model 41/42.

Dmitri Lavrinenko was born in 1914, at Besstrashnaya Station, near the industrial city and transportation centre of Armavir in the northern foothills of the Caucasus area of south central Russia. Determined to be a soldier, he entered military academy some twenty years later in 1934, and was commissioned into the Red Army, soon becoming a tank platoon commander. He was thus in the thick of the fighting from the very start of the German invasion of Russia (Operation 'Barbarossa') on 22 June 1941, when the Nazis launched their massive attack over a 2,000 mile front, stretching from the Baltic at Memel down to the Black Sea. In the centre were the Pripet Marshes, which roughly divided the front into two halves. The main German attack was north of the marshes; there Army Group North (26 divisions) and Army Group Centre (51 divisions) attacked, while south of the marshes was Army Group South (59 divisions). Army Group Centre was commanded by Field Marshal von Bock and

Lt Dmitri Lavrinenko (on the left) and his redoubtable tank crew pose in front of their T-34 medium tank. He was posthumously made a 'Hero of the Soviet Union' for his exploits. (Central Armed Forces Museum)

contained nine panzer divisions divided into two Panzer Groups (Pz Gp II under Guderian and Pz Gp III under Hoth); their aim was to drive along the axis Minsk–Smolensk towards the ultimate prize of Moscow. Initially, however, they would surround and destroy the Russian West Front (Third, Fourth and Tenth Armies) under Marshal Dimtri Pavlov, which contained thirty-eight divisions, including eight tank divisions. The assault began at 0315 hrs and achieved almost complete tactical surprise. An hour later, Guderian's leading panzers had forded the River Bug, using snorkelling equipment which had been designed for use in the aborted invasion of Britain (Operation 'Sealion'). In the first two weeks the German panzers achieved stupendous success, taking over 300,000 prisoners and destroying or capturing some 3,000 tanks. However, the new Russian armoured formations, like Katukov's 4 Tk Bde, were still learning and paying heavily for their lack of experience and obsolete equipment. Gen von Mellenthin described the situation in his book *Panzer Battles* thus:

'At first the Russian tank armies had to pay heavily for their lack of experience . . . they lacked the daring, the tactical insight and the ability to make quick decisions. The initial operations of the tank armies were a complete failure. In tight masses they groped around the main German battle zone, they moved hesitantly and without any plan.'

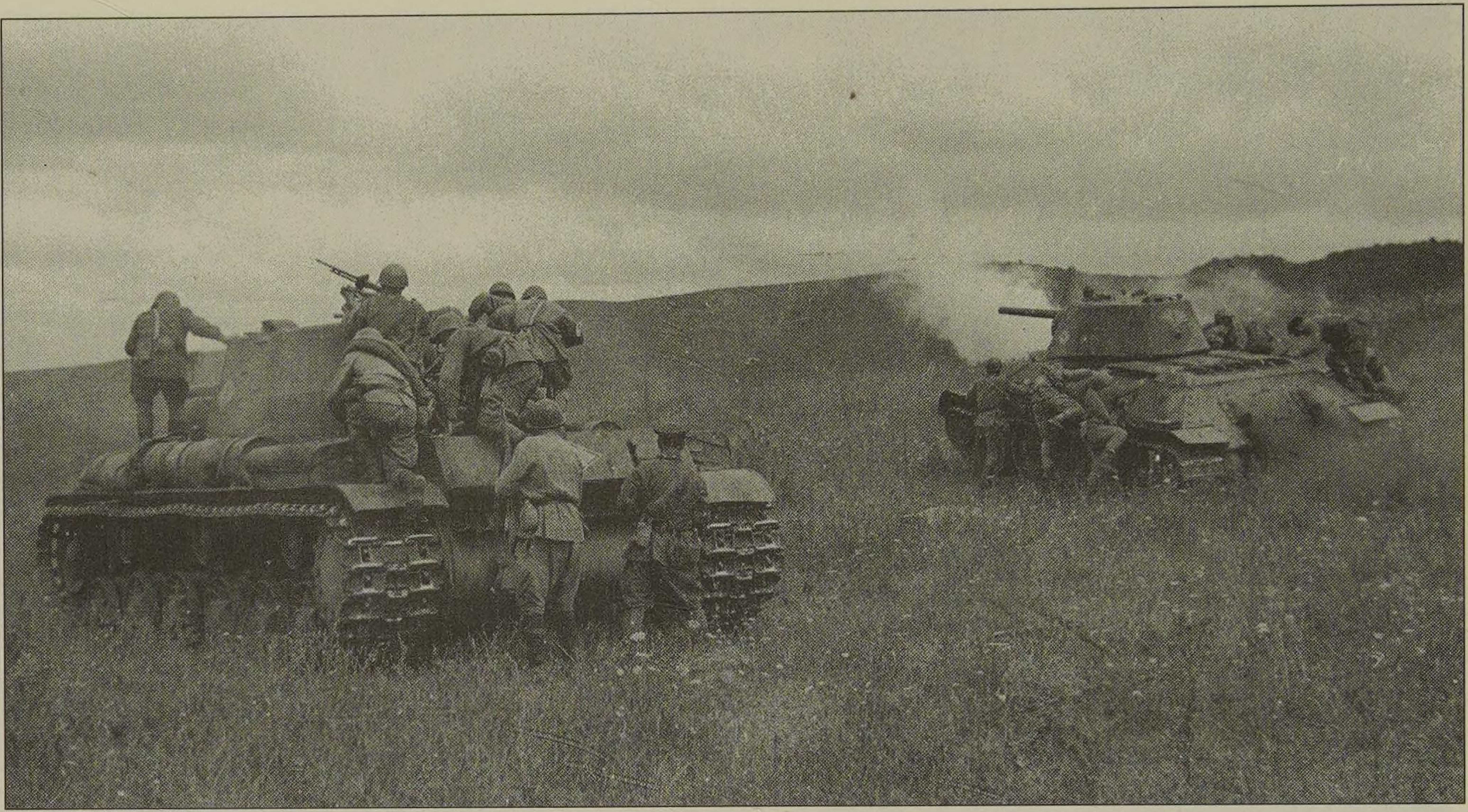
Two T-34s, supported by infantry, flushing the Hitlerites from some farmhouse buildings as they drive the enemy out of Mother Russia. (Central Armed Forces Museum)

The basic weakness of the Russian tactics lay in the fact that their tanks were 'penny packeted', that is to say, spread out in small groups all over the battlefield, rather than being kept concentrated. Marshal Pavlov paid the price for his incompetence, being executed in late 1941, when Rotmistrov took his place and new tank leaders, like the brilliant Katukov and his young tank commanders, began to make an impression on the battlefield.

Later that autumn, in October 1941, around Orel and Mtsensk, 4 Tk Bde was heavily embroiled with the panzers of Gen Guderian's Pz Gp II, as the Nazis tried desperately to reach and capture Moscow before the onset of the winter – Operation 'Taifun' as it was called. The Germans had managed to assemble a vastly superior force and initially, the battle went well for them, so that by late September, they had broken through in the Orel area. Here, between Orel and Mtsensk, their attack began to lose its momentum as the tank casualties mounted. The thick mud which had been a feature of the September battlefields was starting to solidify, promising an early winter. As the temperature dropped, the delicate gunnery equipment of the panzers started to act up, while other carefully machined parts froze solid and tracks stuck to the ground in the cold autumnal weather. However, Guderian puts the main blame for their tank losses not on mechanical failure, but rather on the appearance of the new Russian T-34 medium tank, which came as a nasty shock to the Germans. Guderian rated it as being the best tank in any army up to 1943, which was high praise indeed from 'Schnelle Heinz', tank expert and the acknowledged 'father' of the Panzerwaffe. The T-34 was an ideal combination of good cross-country mobility, thanks to its trouble-free 500-h.p. diesel engine and excellent 'Christie' suspension, which gave the 28-ton tank a top speed of over 30 m.p.h. even over rough terrain, while its powerful 76-mm gun could defeat all the current German tanks and its relatively thick armour and low silhouette made it a difficult target for enemy tank gunners. German Generals von Kleist and von Rundstedt both said that the T-34 was the '. . . finest tank in the world', and those fighting on the steppes of Russia undoubtedly agreed with them! In just four days Lavrinenko and his crew destroyed sixteen enemy tanks – but this was only the beginning.

On another occasion, over 100 enemy tanks and APCs attacked in the direction of 4 Tk Bde, which was deployed in a series of ambush positions in various wooded areas near Mtsensk, straddling the main Orel–Tula road. This tactical deployment was part of a technique which Col Katukov had worked out, having learnt the hard way during the opening German assault. He placed his riflemen sparingly, as 'actors' within trenches and dummy fighting positions, while locating his tanks in defensive ambush positions in depth, with other tanks held centrally in reserve, ready to cover key approaches. For camouflage the tank crews used bushes, trees, haystacks and gained cover from fire by using natural features like reverse slopes. Each tank had its 'hide' plus two or three firing positions, between which they could move undetected, the crews having previously determined the route, bearing and distance to each of them, so that they could move swiftly from one to another whatever the conditions. The tank positions were selected so that they had good fields of vision and fire, integrated one with another so that they were mutually supporting. The dummy positions were there to draw the preparatory enemy artillery fire and to be attacked by their Stuka dive-bombers. As the enemy advanced, the infantry 'actors' would be withdrawn to the real line of defence, while the tanks remained silent and hidden. Only when the German panzers had advanced to within some 200 to 300 m would the tanks in their ambush positions open fire at point-blank range. After firing a few rounds the tanks would move to one of their alternative positions and continue to knock out the enemy tanks, while they remained undetected.

The great Marshal Georgi Zhukov, who was charged with the overall defence of Moscow at the time, commented in his autobiography about this battle: 'For the first time, the tankmen of our 4th and 11th Brigades hit the enemy vehicles from ambush.' He goes on to quote from Gen Heinz Guderian memoirs, saying: '2nd October. . . . Simultaneously in the operational zone of the 24th Panzer Corps near Mtsensk, north-east of Orel, bitter fighting broke out, involving the 4th Panzer Division. . . . A large number of Russian T-34s was engaged in the battle, causing considerable losses to our panzers. The superiority that our panzers had so far was now lost and seized by the adversary. This wiped out the chances of a rapid and unintermittent success.'[1] In this battle, Lavrinenko's platoon of four T-34s was supported by three heavier KV-1 tanks, under a Sgt K. Antonov. Together they knocked out eleven enemy tanks and two artillery guns, which were squashed flat under the tracks of the large 46-ton KV-1. The battle raged until midday, by which time the battlefield was covered with knocked-out enemy weapons, including 43 tanks, 16 guns and 6 trucks. 4 Tk Bde had lost 6 tanks, but only 2 were totally



Red Army infantry mounting onto T-34s to continue the attack in the northern Caucasus, pressing the Germans back towards Rostov. This photograph was taken during the autumn of 1942. (IWM RUS 3720)

beyond repair and they were cannibalized for spare parts, the other 4 being towed off the battlefield for repair in the field workshops.

During these battles the Russian tankers held the German panzers to an advance of only 30 km in eight days, while being credited with destroying a total of 133 tanks, 49 guns, 6 aircraft, 15 ammunition tractors, a regiment of infantry, 6 heavy mortars and much other combat equipment.

In November Lavrinenko's tank platoon was deployed around the small village of Guseinovo, helping to protect the divisional headquarters of Gen Panfilov's[2] division, which was located in the village. One day, a German column of eight tanks managed to penetrate the outer area defences and was rapidly approaching the village. Instead of waiting in his defensive positions until the enemy opened fire, Lavrinenko decided to gain the maximum surprise by counter-attacking, and he moved immediately towards the approaching enemy, firing on the move. 'The first shot knocked out the lead enemy tank,' wrote Anatoli Dokuchayev in the *Krasnaya Zvezda* article already mentioned, 'not giving the Hitlerists time to realise what was happening, the crew cracked off six more rounds – and each found a target. Only a single enemy tank survived to scurry back under cover.'

On 11 November 1941, 4 Tk Bde became the 1st Guards Tank Brigade (1 Guards Tk Bde) – the very first tank unit to receive the coveted 'Guards' title. Col Katukov was promoted to major general, and was awarded the Order of Lenin. However, as he could not obtain the necessary badges of rank due to difficult supply conditions, they had to be drawn on his greatcoat in indelible ink!

During the next few days of heavy fighting 1 Guards Tk Bde counter-attacked at Skirmanovo, in three echelons in order to give it depth. In the heavy fighting the brigade destroyed twenty-one German tanks and captured an 88-mm AA gun, which the Germans had used in the anti-tank role with considerable success. By mid-November, the brigade was down to just twenty tanks and was only able to continue its rearguard operations when reinforced by a KV heavy tank battalion. Between 16 and 21 November against a renewed German offensive, the brigade claimed thirty-three German tanks and seven anti-tank guns destroyed, as the Russians withdrew along forest trails, the tanks skidding in the soft slushy snow. In some places the snow hid more treacherous boggy ground in which heavy vehicles constantly got stuck and had to be recovered with great difficulty under the continual risk of enemy interference.

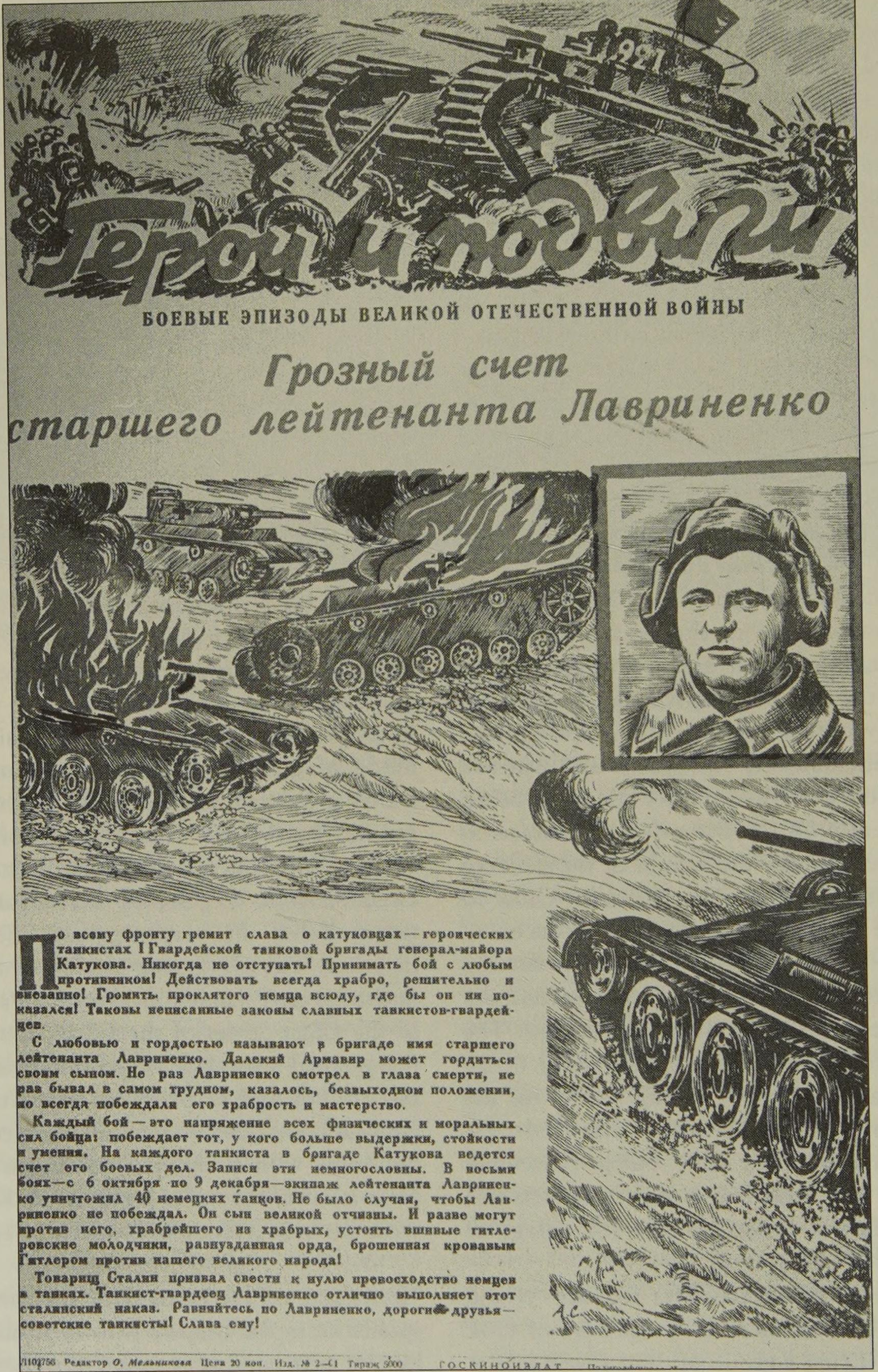
Lavrinenko took part in a total of twenty-eight tank battles in the hectic months of October, November and December 1941. Despite the fact that the Russian forces were generally outclassed, being equipped in the main with obsolete equipment and just too few modern T-34s and KV-1s, also being permanently on the defensive and forced to give ground under the weight of the German Schwerpunkt, Lavrinenko invariably chose to turn the tables on the 'Hitlerists' on every possible occasion. He did not wait for the enemy to act, but deliberately seized the initiative and sought them out instead. The result was that he destroyed a total of 52 enemy tanks out of 4 Tk Bde's total for the period of 133 enemy tanks destroyed.[3] He might have achieved more, but in November 1941 he was killed in a tank battle on the approaches to Moscow, near the village of Goruna.

Katukov liked to refer to his young fighting tank officers as 'professors of tank warfare'. Eying a group of new, young officer replacements in January 1942, he welcomed them as follows:

> 'There's a lot to tell you, and I'll never manage to cover everything at one go. So just remember one thing. Fighting requires skill. We have plenty of people we can learn from. In this brigade we have real professors of tank warfare, who have been fighting since the first hour of the war. . . . Some have won two or three medals, some have even earned the title of Hero of the Soviet Union. Learn from these professors.'[4]

Undoubtedly Lt Dmitri Lavrinenko had graduated from the academy of war with honours, but sadly did not live to be himself honoured by those who took his place. Posthumously, Lavrinenko had conferred upon him the title Geroj SSSR (Hero of the Soviet Union), which meant that he was awarded both the Order of Lenin (Orden Lenina), the USSR's most prestigious award, and the Gold Star Medal (*Medalj Zolotaja Zvezda*). The former, which had been first instituted on 6 April 1930 by the Central Executive Committee of the Soviet Union, was made of gold, platinum and enamel and shows a portrait of Lenin, above which is a red flag bearing his name. The ribbon is red, with yellow/red/yellow edges. During the Great Patriotic War, 36,000 were awarded for unparalleled bravery against the Nazi invaders. The Gold Star Medal, which was instituted on 1 August 1939 by the Presidium of the Chief Soviet of the USSR, is a simple five-pointed star made of gold, hanging on a red ribbon and is worn on the left breast above all other decorations. The holder is also presented with a diploma and has a bronze plate bearing his name hung in the Kremlin, while his bust is set up in his place of birth.

'The name of 1st Lieutenant Lavrinenko is spoken of in the Brigade with love and pride. Distant Armavir can be proud of its son. More than once Lavrinenko has looked death in the eye, more than once he has been in the most



Герои и подвиги

БОЕВЫЕ ЭПИЗОДЫ ВЕЛИКОЙ ОТЕЧЕСТВЕННОЙ ВОЙНЫ

Грозный счет старшего лейтенанта Лавриненко

По всему фронту гремит слава о катуковцах — героических танкистах I Гвардейской танковой бригады генерал-майора Катукова. Никогда не отступать! Принимать бой с любым противником! Действовать всегда храбро, решительно и внезапно! Громить проклятого немца всюду, где бы он ни показался! Таковы неписаные законы славных танкистов-гвардейцев.

С любовью и гордостью называют в бригаде имя старшего лейтенанта Лавриненко. Далекий Армавир может гордиться своим сыном. Не раз Лавриненко смотрел в глаза смерти, не раз бывал в самом трудном, казалось, безвыходном положении, но всегда побеждали его храбрость и мастерство.

Каждый бой — это напряжение всех физических и моральных сил бойца: побеждает тот, у кого больше выдержки, стойкости и умения. На каждого танкиста в бригаде Катукова ведется счет его боевых дел. Записи эти немногословны. В восьми боях — с 6 октября по 9 декабря — экипаж лейтенанта Лавриненко уничтожил 40 немецких танков. Не было случая, чтобы Лавриненко не побеждал. Он сын великой отчизны. И разве могут против него, храбрейшего из храбрых, устоять вшивые гитлеровские молодчики, разнузданная орда, брошенная кровавым Гитлером против нашего великого народа!

Товарищ Сталин призвал свести к нулю превосходство немцев в танках. Танкист-гвардеец Лавриненко отлично выполняет этот сталинский наказ. Равняйтесь по Лавриненко, дорогие друзья — советские танкисты! Слава ему!

Л102756 Редактор *О. Мельникова* Цена 20 коп. Изд. № 2—41 Тираж 5000 ГОСКИНОИЗДАТ

This pamphlet, entitled *The Grim Reckoning of 1st Lieutenant Lavrinenko*, eulogizes the heroic actions of this 'brave son of distant Armavir'. It cost 20 kopeks in 1941–2 and was from a series entitled 'Heroes and Their Exploits'. (Central Armed Forces Museum) difficult and seemingly hopeless situation, but his bravery and skill has won through every time. . . . He is the son of a great nation. How could they possibly stand up against him, the bravest of the brave, these verminous Hitler youths, an unbridled rabble hurled by that bloodstained Hitler against our great nation? Comrade Stalin has called on us to reduce to zero the German superiority in tanks. Guards Armoured Officer Lavrinenko is magnificently obeying this order from Stalin. Match the example of Lavrinenko, my friends in the Soviet tank units! All glory to him!'

(Extracted and translated from the pamphlet *The Grim Reckoning of 1st Lieutenant Lavrinenko*, published in the USSR as part of a series entitled 'Heroes and Their Exploits', 1941–2, price 20 kopeks.)

MARSHAL P.S. RYBALKO

Born on 4 February 1894, in the tiny village of Maly Istorop near Lebedin in the Ukraine, this short, squat, tough, uncompromising soldier ended the Great Patriotic War as the Red Army's premier tank commander, who had reached the very heart of Germany – namely the streets of Berlin – before any other Russian tank general. There had been no indication of his coming greatness on the battlefield during his early years, when he lived in a small cottage with seven brothers and one sister. Every member of the family worked, his father in a local sugar-beet factory, while young Pavel Semonovich was apprenticed as a lathe operator at the age of thirteen after attending the local parish school. In the First World War he was conscripted with millions of other young Russians into the cavalry of the Imperial Army of Tsar Nicholas II. He proved to be a natural soldier, being awarded the Cross of St George for bravery, fighting constantly at the front until the 1917 October Revolution, when he became a member of the Bolshevik Red Guard. He commanded a partisan group that fought against both the Germans and then the Ukranian nationalists. Two years later, Rybalko joined the Communist Party and became a political commissar, first at regimental then at brigade level in Gen Budyenny's First Cavalry Army, which fought against the White Russians around Rostov and in the Crimea. In 1920 he was decorated once again for personal bravery, this time with the Order of the Red Banner. In the five years of the revolution, Comrade Rybalko was wounded no fewer than fourteen times.

The unmistakable bull-necked, tough, uncompromising countenance of Marshal Pavel Rybalko, considered by many to be one of the best armoured commanders in the Red Army. (Central Armed Forces Museum)

Rybalko stayed in the Red Army, but changed from political commissar to military commander, commanding the 80th Cavalry Regiment in the Russo-Polish War of 1920. The regiment took part in the initial, successful operations in June; however, the reorganized Polish forces, under Marshal Josef Pilsudski, defeated the Red Army near Brest-Litovsk, capturing over 70,000 Russians. This defeat led to an armistice on 12 October. Over the next decade, Rybalko commanded first his regiment then a cavalry brigade and also attended both the Red Army Military Academy and the Frunze Military Academy, graduating from the latter in 1934. He then worked in the Far East as a cavalry adviser to Chinese units fighting against the Japanese in Manchuria. By this time, the Red Army had begun to take a great interest in tank development, the first Five Year Plan being launched in 1929. Just prior to the start of the Second World War, Rybalko spent two years as Military Attaché in Warsaw and was serving there when the Germans invaded Poland in September 1939, and he was still there during the subsequent invasion by the Red Army, which divided Poland between its two oldest enemies. This foreign service not only probably saved Rybalko from being purged in Josef Stalin's murderous assault on the Red Army in 1937–8, but also then resulted in him gaining rapid promotion to major general. When the Germans invaded the USSR in June 1941, Rybalko was instructing at the Kazan Tank School, which had been established in 1929 with covert German assistance because they wanted somewhere secret to try out their developing panzers, without anyone knowing that they were breaking the Versailles Treaty. While teaching there, Pavel Rybalko studied armoured warfare as well, mastering all the mechanical and fighting capabilities of the tank, while taking every opportunity possible to gain battle experience, until he considered that he was ready to command armoured troops in battle. Then, using the influence of friendly senior officers, such as Gen Andrei Eremenko, he managed to get himself assigned as the deputy commander of the 3rd Tank Army, which was then being assembled in the wooded areas south of Tula in western Russia.

When he arrived with the 3rd Tank Army, Rybalko quickly realized that he had only minimal knowledge of the new Russian medium tank, the T-34, which proved to be the most important tank in the Red Army, so he decided to rectify this omission. As Richard N. Armstrong relates in his book *Red Army Tank Commanders – The Armored Guards*:

> 'The new deputy commander, in freshly pressed overalls, appeared at a subordinate tank brigade's motor park. He received instruction on the T-34 systems, components and instruments. . . . He assumed the role of a driver-mechanic and spent more than 15 driving hours in the tank, putting it through different and difficult terrain. . . . Rybalko's mastery of the technical aspects of armored warfare is indicative of all great battle captains who commanded effectively their engines of war.'

In Autumn 1942 Rybalko was moved to command the Fifth Tank Army; a few months later, he was reassigned to take over the command of the Third Tank Army from Gen Prokofii Logvinovich Romanenko. He would remain in this command for the rest of the war. Formed in May 1942, the Third Tank Army was eventually the most powerful single formation in the Red Army. It later comprised three tank corps, three rifle divisions and an independent tank brigade. However, in January 1943 it contained just the 12th and 15th Tank Corps; the 11th, 180th and 184th Rifle and the 48th Guards Rifle Divisions. Initially, the Tank Army did not perform particularly well in its first minor operations. After studying the war diaries, regimental reports and other evidence, the army commander came to the conclusion that the tank losses were mainly due to poorly trained tank drivers. This was something he could deal with and he immediately instituted a strict retraining programme which he ruthlessly enforced, his basic premise being that they were a tank army, thus an attacking army, and therefore, in the preparation of all units, the basic task had to be to learn how to mount and successfully promote the attack. This was of course in line with the emerging Red Army tactics of using the speed, shock action and manoeuvre of the tank in the offensive, to dominate the battlefield – not unlike the German Blitzkrieg but on a much larger scale.

In January 1943, the Third Tank Army distinguished itself in a highly successful offensive operation which brought Rybalko to the attention of the Supreme Soviet and, in particular, to Josef Stalin himself. 'On Rybalko, personally, we might say the following: he is an experienced general and his appraisal of the situation is accurate.'[5] That is how Gen Zhukov and Gen Vasilevski reported on the up and coming armoured expert. However, after crossing the Don, encircling and destroying a large enemy force, then fighting against German, Hungarian, and Italian units, for which operation he was awarded the Order of Suvorov (1st Degree), Rybalko and his Third Tank Army were continually asked to do too much against overwhelming enemy forces, and as a result, suffered heavy casualties, in particular in the vicinity of Kharkov; by 5 March his army was down to under fifty tanks. A few days later, encircled, with no ammunition, fuel or food, the Third was given permission to abandon the city and withdraw across the River Donets. By 26 April Rybalko's army had virtually ceased to exist and Pavel had to go to Moscow to argue for its restoration with Gen Federenko, commander of the Red Army armoured forces. Rybalko argued his case very well indeed and managed to enlist Federenko's backing to re-establish his army as an operational force. After some weeks of conferring at Stavka (Supreme High Command), eventually on 5 June 1943, they issued the necessary approval. Sadly, it was also about this time that Rybalko received the tragic news that his nineteen-year-old son was missing in action. By early July 1943, his army, which now had over 700 tanks (including 475 T-34s), 700 guns and mortars, plus some 40,000 men, was training hard under his expert eye.

Both sides had lost heavily during the winter, but by now not only was American and British aid flowing in, but also the remarkable recuperative powers of the Russians were beginning to turn the tables against the Germans. However, this did not prevent the still enormously strong German panzer forces from trying to restore the situation in their favour. Operation 'Citadel', the German plan to eliminate the Kursk salient, was scheduled for the beginning of July and resulted in the battle of Kursk, which has proved to be the largest tank battle in history to date. When the battle began, the Third Tank Army was in the Stavka reserve and was located in a forested area south of Plavsk. It now had a full complement of units, each tank corps, for example, comprised three tank and one mechanized brigades, with supporting self-propelled artillery, multiple rocket launchers, infantry assault and AA guns. Each tank brigade consisted of sixty-five tanks (T-34 mediums and T-70 lights), with two days' reserve ammunition and fuel. It is a remarkable insight into how much the USSR had achieved since the early days of the German invasion, that they were now able to keep such a potent striking force in reserve. The Third Tank Army did not initially take part in the Kursk battle, but rather was part of the Russian 'armoured fist' which between 12 and 15 July began to push forward to the north of the Kursk salient in the direction of Orel, attacking along three routes with 12th and 15th Tank Corps leading, 2nd Mechanized Corps in the follow-up echelon, and 91st Independent Tank Brigade in reserve (plus 50th Motorcycle Regiment). By the 23rd, the Germans were back to their Operation 'Citadel' start lines, and their hoped-for destruction of the Kursk salient had ended in complete failure.

Like so many other successful armoured commanders, Rybalko was constantly in the thick of the fighting. He had little regard for his own personal safety, normally travelling in one of the unarmoured 'Lend-Lease' American Jeeps, which were known as 'Villises' by the Russians. He often drove without the normal accompanying guard AFV and supporting staff in other vehicles, logically arguing that the enemy would consider one Jeep to be an insignificant target, while two or three 'Villises' plus an armoured vehicle would represent a VIP and thus would be worth engaging. This did not stop him from having many narrow escapes. On one occasion he was spotted by the Luftwaffe and strafed. They destroyed his vehicle, killed his driver and seriously wounded his aide. Rybalko arrived at the brigade command post he was visiting on foot, but miraculously unharmed. However, despite his rough, tough exterior, he was not a well man, suffering from a retention of body fluids, which put pressure on all his joints, forcing him to use a cane to assist him in walking. In addition, he had constant kidney problems, the result of an old injury sustained when he was thrown from his horse during the civil war. Whenever he was asked why he did not see a doctor he would explain that if he did so rumours were bound to start circulating immediately that the Army commander was too ill to fight, and that would never do. His nickname throughout the Army was 'The Hammer', in recognition of his reputation as a hard and aggressive commander.

As a result of all the highly successful operations in which the Third Tank Army had taken part, they were awarded, on 26 July, the coveted title of 'Guards', so the 12th and 15th Tank Corps became the 6th and 7th Guards Tank Corps respectively, and the 2nd Mechanized Corps became the 7th Guards Mechanized Corps. Having suffered heavy losses, Rybalko's army was pulled out of the front line, made up to strength and then a few days later, transferred to Marshal Rokossovky's Central Front. Although it had received reinforcements of both hardware and men, there was still a severe shortage of officers within battalions, which Rybalko knew would lead to higher casualties. Despite these problems, the Third Guards Tank Army was once again required to break through enemy-prepared defensive positions, which it did successfully, but at considerable loss. Rokossovky is reported to have considered Rybalko to be a firm and resolute commander.

In mid-August the 9th Mechanized Corps also joined the Third Guards Tank Army, and the following month they were moved to reinforce Gen Vatutin's Voronezh Front. By now the tank brigades within the Third Guards Tank Army had some 50 per cent new T-34s, armed with the 85-mm gun. Vatutin told Rybalko that his army would play a major role in attacking the enemy and that it would have to travel at over 100 km a day if it was to prevent the Germans from establishing a new defensive line behind the Dnieper. 'Everything is clear Comrade Commander', Rybalko answered. 'You must not have any doubts that the army can fulfill the order.'[6] And he was true to his word; his army moved forward on the 20th and crossed the Dnieper on the night of 22 September, an operation that would see no fewer than 2,000 Red Army soldiers being made Heroes of the Soviet Union. Rybalko was as always up at the 'sharp end', working relentlessly to solve tactical and practical problems, such as the loss of the commander of the 6th Guards Tank Corps, Gen Zinkovich, who was killed in a bombing attack while

'The Hammer' plans. Col Gen Pavel Semonovich Rybalko, C-in-C Third Guards Tank Army, planning at his desk in 1944. (Central Armed Forces Museum)

supervising crossing operations. By the end of the year, the Russians were across the Dnieper in considerable strength around Kiev (which fell on 6 November). Despite the Germans fighting with great skill and inflicting heavy casualties, the Red Army had made enormous territorial gains. For the skilful direction of troops in forcing the Dnieper and liberating Kiev, Lt Gen Rybalko was awarded the title of Hero of the Soviet Union on 17 November 1943.

Space does not permit a detailed account of the Third Tank Army's remorseless advance against stubborn German resistance. However, by early 1945 it was part of the Red Army's largest offensive of the war, the Vistula–Oder operation. The major bridgehead, the Sandomierz on the Vistula on 1st Ukranian Front, contained 90 per cent of its forces, including Rybalko's Third Guards Tank Army, which Marshal Konev had chosen to attack due west from the bridgehead. Speaking just before the operation, Rybalko said: 'We must do what we can so our tanks can enter the lair of the Nazi beast and finish him off there. Our vehicles can make it to Berlin, but it is necessary to overcome all defensive lines while preserving our tanks. . . . In order to do this, it is necessary to make known the best driver-mechanics and teach the rest by their example.'[7] Once again the thoroughly practical Rybalko was re-emphasizing the need for the basic skills of the tank crewmen, especially the tank drivers on whom so much depended if the tanks were to reach the

A T-34/85 medium tank crossing the Teltov Canal during the operations to capture Berlin, April 1945. (Central Armed Forces Museum)

enemy's capital. And by mid-April he had achieved the impossible. On the night of 17 April 1945, the Third Guards Tank Army received orders to force the River Spree and begin its final assault towards the southern edge of Berlin. 'How this order inspired us', Rybalko later recalled. By 22 April the Third had overrun Zossen and the following day were only some 20 km from the capital. It had still to cross another major obstacle – the Teltov Canal (30–35 m wide and 4–5 m deep), which was heavily defended. Konev reinforced Rybalko's army with massive artillery support, which enabled him to blast a path through, to capture a bridgehead on the north bank of the canal, and to repair a number of bridges. Konev joined Rybalko in his command post, which was situated in the tallest building in Teltov for the final assault. Seven floors up, they had a perfect view as Rybalko's tanks moved forward into the heart of the city.

After the capture of Berlin, Rybalko's army moved swiftly on, together with other forces of the 1st Ukranian Front, to surround German Army Group Centre in Czechoslovakia, an operation that was soon achieved. On the morning of 19 May 1945, they broke through the remaining enemy defences and entered Prague in triumph. This was the last operation of the war for Pavel Rybalko and his gallant tank army. For his achievements, Col Gen Rybalko was awarded his second Gold Star as a Hero of the Soviet Union on 6 April 1945. Uncompromising, hard on his soldiers, but always fair and just, always driving himself just that little bit harder than anyone else, he

In the very heart of the enemy capital: Red Army T-34/85 medium tanks motoring towards the Brandenburg Gate, April 1945. (Central Armed Forces Museum)

had all the characteristics of a great armoured soldier in the mould of such men as Patton and Rommel. From humble beginnings he had risen to become the premier Red Army tank general, as his rapid offensive across Poland and his bold capture of Berlin had shown.

From 1945 Rybalko was promoted Marshal of the Armoured Forces, and served initially as First Deputy to the C-in-C, then, from April 1947, C-in-C of the Armoured and Mechanized Forces of the Soviet Army. He was also a deputy at the second session of the Supreme Soviet of the USSR. He died on 28 August 1948 and is buried in Moscow. A bronze bust was raised to him in his native village, while memorial plaques to him were set up in Moscow and Kharkov. A Rybalko Museum was opened in Maly Istorop, streets were named after him in Moscow and Kiev. Finally the Tashkent College for Senior Tank Commanders is named after Rybalko. His awards included: Order of Lenin (twice), Order of the Red Banner (three times), Order of Suvorov 1st Class (three times), Order of Kutuzov 1st Class, order of Bogdan Khmelnitsky 1st Class, together with other medals and foreign orders.

A POLISH TANK HERO

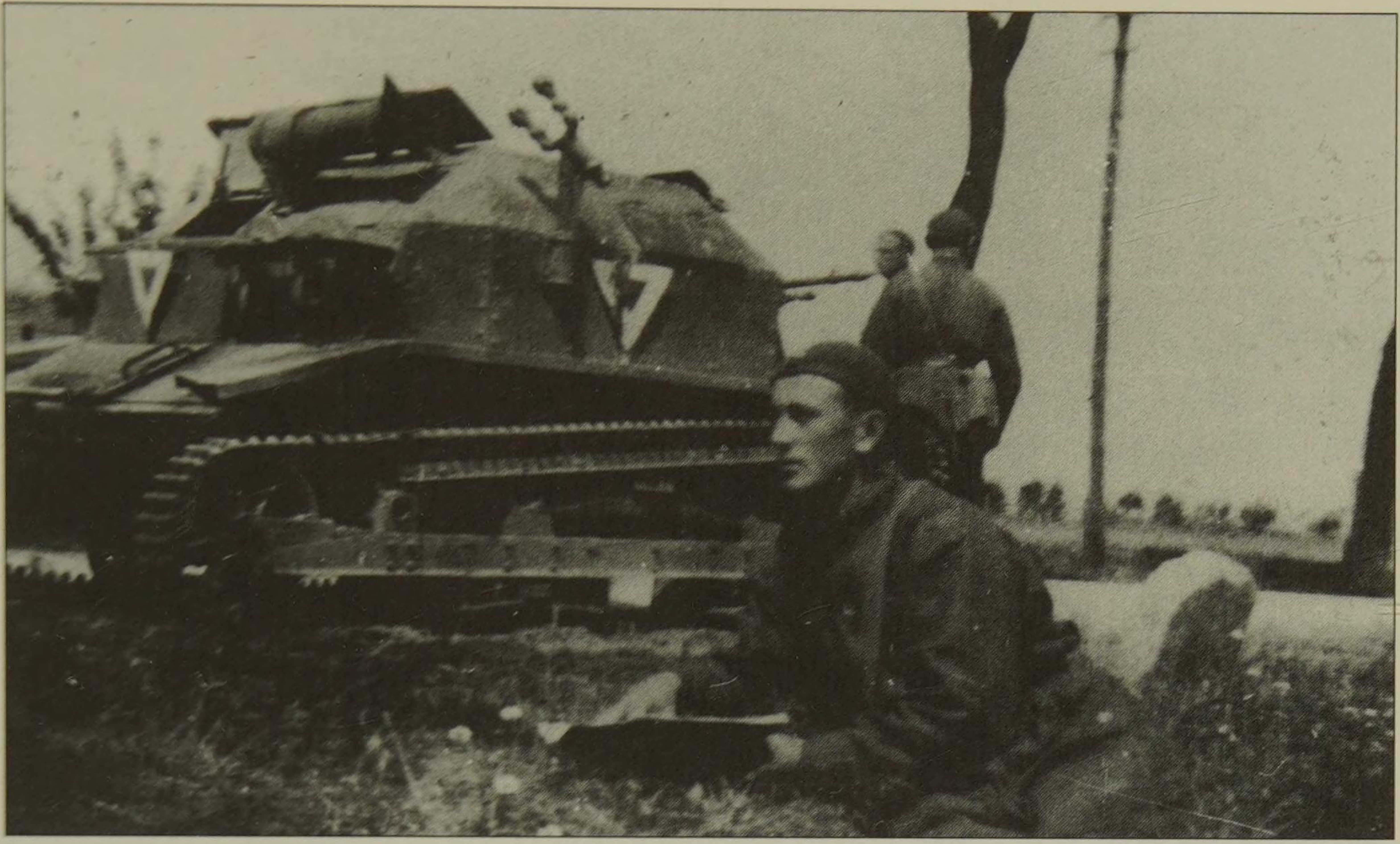
Janusz Magnuski is a well-known and highly respected Polish historian, who has written many books and articles on armour. I am very grateful indeed to him for providing all the background material for the following account of the exploits of a young Polish tank ace, together with all the photographs.

Detail		PzKpfw 35(t)	TK S
Wt (tons)		10.5	2.43
Dimensions	L:	4.9 m	2.58 m
	Ht:	2.35 m	1.78 m
	W:	2.1 m	1.32 m
Crew		four	two
Armament	Main:	3.7 cm (72 rds carried)	20 mm cannon
	Secondary:	2×7.92 mm MG	None
Armour	Max	35 mm	8 mm
	Min	8 mm	3 mm

The war was only eighteen days old when Officer Cadet Roman Orlik secured his place on the roll of tank heroes, fighting for his country against the might of the German Wehrmacht, as the Blitzkrieg swept across the frontier and on into Poland. And what was truly remarkable about his tank actions was the fact that his 'tank' was a tiny two-man, 2½ ton TK S tankette, which mounted a 20-mm cannon as its only armament and had paper-thin armour. The other two tankettes in his half-platoon were similar, but their armament was just a single light machine-gun (LMG). Their opponents in the battles described below were German tank crews in Czech-built tanks, the LT vs 35, 'acquired' when the Germans overran Czechoslovakia, and which was taken into German service as the PzKpfw 35(t). A comparison of their 'vital statistics' is worth studying (above).

OFFICER CADET SGT R.E. ORLIK

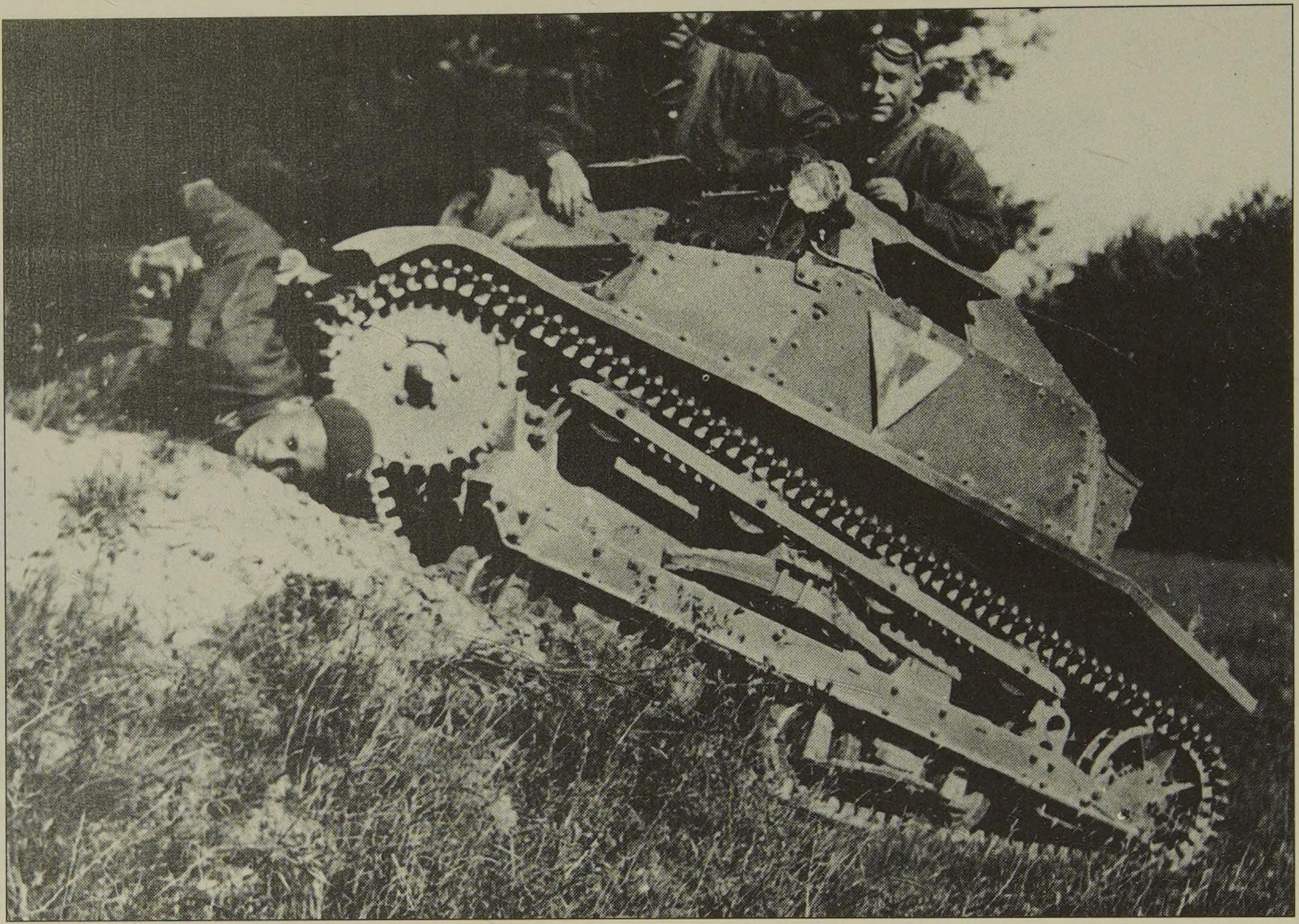
Roman Edmund Orlick was born in 1918 in Rogozno, Wielkopolska, during the Polish Uprising which ended with the joining of these areas to Poland. From school he was admitted to the Air Forces School in Deblin, but later transferred to the Centre of Training of Armoured Forces in Modlin, where he completed the first two-year course at the School of Officer Cadets of Reserve for Armoured Forces. Next, he enrolled for studies at the Warsaw Polytechnic. On 26 August 1939 he was drafted as an officer cadet sergeant of the reserve to a squadron of reconnaissance tanks in the 71st Armoured Battalion, Wielkopolska Cavalry Brigade (WBK). He took command of a half-platoon of TK/TK S tankettes, his tank being one of only twenty-four in the brigade armed with an automatic 20-mm cannon, instead of an LMG. Officer Cadet Orlik had already taken part in action on 1 September, around the town of Leszno, and the following day had crossed the frontier with his platoon and fought on German soil at the village of Geresdorf. On 14 September the tankettes gave excellent support first to the 15th Regiment of Uhlans, then to the 7th Mounted Rifles, in the battle to cross the River Bzura at the village of Brochow on the western edge of the Kampinos Forest. Orlik knocked out three German tanks belonging to Regiment 38 of the 4th Panzer Division during that action; then, on the 18th, as we shall see, he knocked out a further three enemy tanks. The following day, this remarkable young tank commander knocked out no fewer than seven more enemy tanks. This is how Janusz Magnuski, told me it happened:



Officer Cadet Roman Orlik on training in Centrum Wyszkolenia Broni Pancernych in the old fortress of Modlin, north of Warsaw, in 1936. Note the TK tankette in the background. (J. Magnuski Collection)

'The Cavalry Operational Group was breaking through the Puszcza Kampinoska (Kampinos Forest) towards Warsaw. In its advance guard was Officer Cadet Roman Orlik's half-platoon of three TK and TK S tankettes. In the early afternoon of 18 September Gen Abraham, Commander of the Wiekopolska Cavalry Brigade, recently wounded and with a field dressing on his neck, arrived at the tankettes, located in the forest and approached Orlik. "Take your tanks and go on ahead," he ordered, "there are some German tanks hanging around there, killing my Uhlans. They have to be silenced!" "Yes Sir!" The Officer Cadet saluted smartly and then gave the appropriate orders to his crews, who started their engines and moved off, with Orlik's 20 mm TK S leading, followed by the two standard TKs.

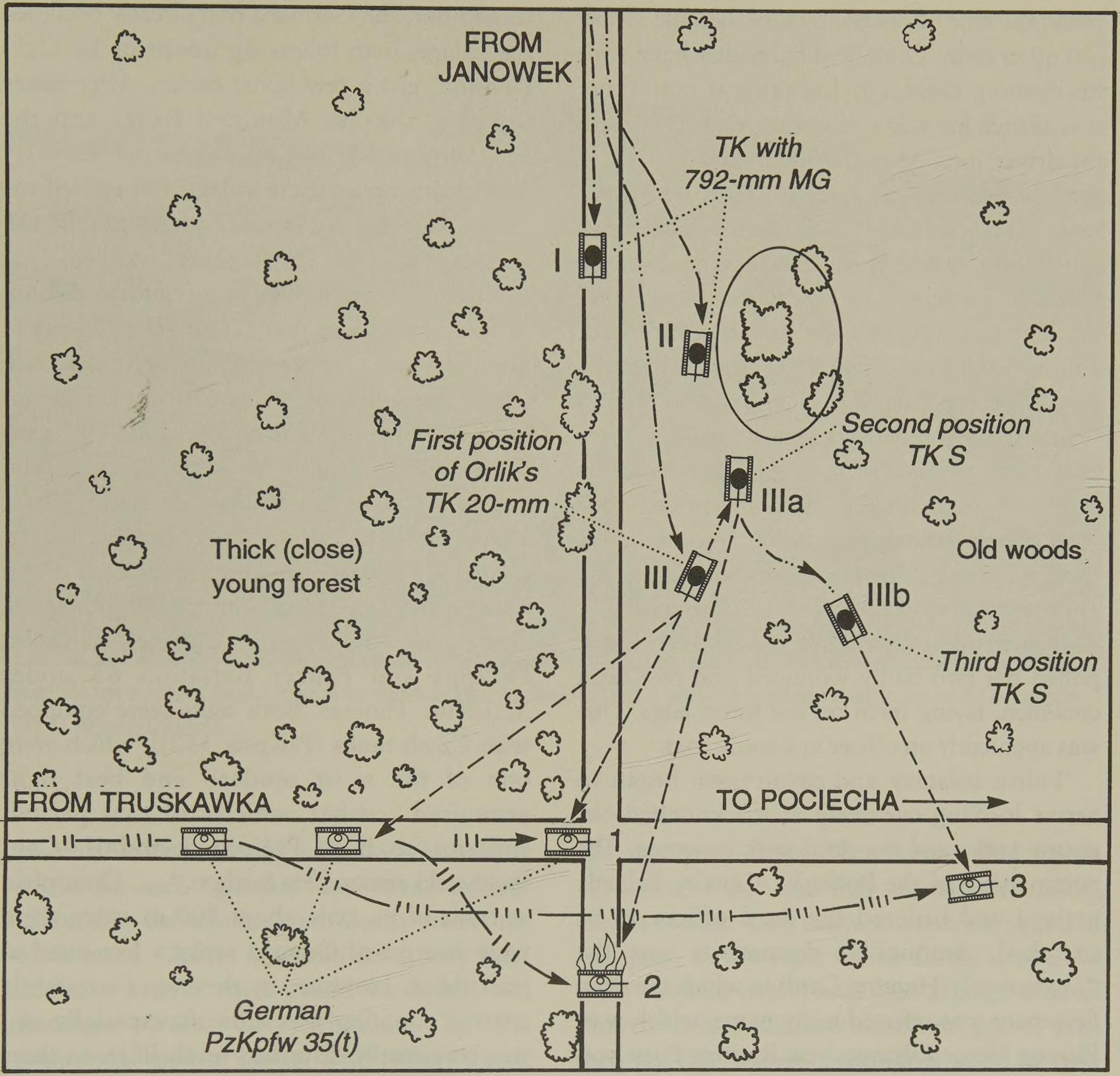
'At the first crossroads with another, wider forest path near the small village of Pociecha, Orlik noticed fresh traces of the enemy. He halted his tankettes, jumped down and went forward a few yards. On the sandy forest track there were clear track marks and he caught the whiff of petrol fumes mixed with freshly churned-up soil. The tank track marks were wide and Orlik, who had some knowledge of enemy tanks from both his battle experience and from studying training photographs, was unable to decide what type of AFVs had passed here, although they were clearly much larger than his tiny tankettes. Orlik felt a twinge of fear as he thought about the enemy – would he be able to fight such monsters? Just then the silence of the forest was broken by the distant noise of heavy engines, getting louder. Orlik was now alert, there was no doubt that the enemy was returning.



'Boys will be boys'! Roman Orlik pretending to be caught under the tracks of a TK S while on training. (J. Magnuski Colection)

'The Officer Cadet ran back to his men and quickly gave them his orders. The two TKs were to withdraw a few metres, get into a thicket at the side of the track and prepare to engage the enemy. He then ordered his driver to turn left and move the TK S back up to a small hillock, thickly covered with juniper bushes and small pine trees which provided good natural camouflage. Soon the TK S could not be seen, even from a few yards away. Orlik barely had time to remount his vehicle, check his fields of fire and load his cannon, when on the road to the right, between the trees, the leading enemy tank appeared! It was only some 120 m away from them, however, Orlik did not recognise it – an unknown type, not quite so large as he had expected – but it had a sizeable gun and that made it dangerous!

'Calmly placing the aiming marks on his sight on the centre of the large white cross painted on the tank just below the turret, he squeezed the trigger. The gun sounded with its usual bass sound. Immediately all fear disappeared. There was a flash on the enemy armour, hardly visible in the sunlight, but the tank slowed down and stopped. The crew had clearly decided to bale out and some human figures soon appeared outside. However, at the same moment another enemy tank appeared from behind the shield of trees. Orlik fired again, noting that the second tank had started to turn right to hide behind the first one. Orlik fired a number of rounds at


FROM JANOWEK
TK with 792-mm MG
I
II
Second position TK S
IIIa
First position of Orlik's TK 20-mm
III
Old woods
IIIb
Thick (close) young forest
Third position TK S
FROM TRUSKAWKA
TO POCIECHA
1
3
2
German PzKpfw 35(t)

The action at Pociecha, 18 September 1939. (Map: M. Komarnyckyj)

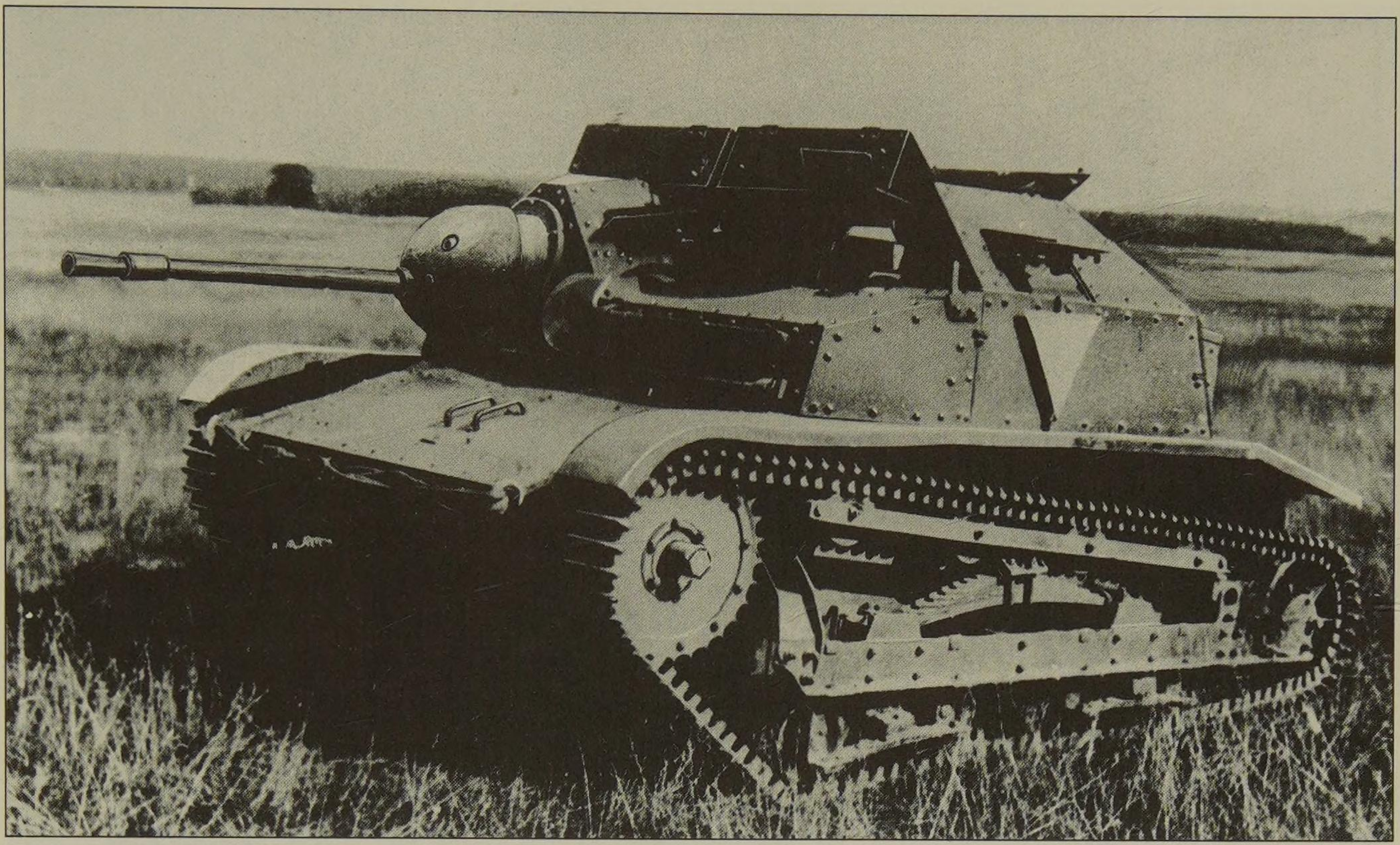
the two tanks and at the baled-out crewmen, who quickly took cover. Shortly afterwards, the second tank came completely out from behind the damaged one, picked up speed and, shooting ahead, quickly reached the crossroads, where Orlik hit it squarely "right in the hall"! It was an excellent shot and the German tank was soon in flames, thick smoke billowing out. No one got out this time.

'Then a third tank appeared. Its crew were clearly confused and had obviously not located where the cannon fire was coming from, as they charged past the two knocked-out tanks, firing blindly with all guns (one 37 mm and two machine guns) as they tried desperately to escape. The tank almost made it, quickly leaving Orlik's field of fire, so he ordered his driver to start up and gave chase. As they turned onto the track, the rear of the enemy tank became visible just 60 m away. Orlik fired burst after burst with his cannon, eventually knocking it out. There was silence for a few moments, then Orlik and his driver jumped out of their tankette, drew their pistols and ran over to the three enemy tanks. "Hande Hoch!" The German tank crews obediently raised their hands. One of them seemed anxious to explain something, gesticulating towards the burning tank and, although the Poles couldn't understand him at first, it soon became clear that he wanted help to rescue some trapped crewmen. Orlik nodded: "OK, let's go and try to help!" The Germans tried in vain to lift the hatch covers, but they were clearly bolted from inside and eventually they had to stop. The fire was increasing and the ammunition would explode at any moment. They next went to the last of the three tanks, pulled out two badly wounded and two dead crewmen, laying them on the forest edge. One was apparently an officer in a suede coat.

'Polish infantry and cavalrymen began to arrive looking curiously at the knocked-out enemy tanks and the dead tank crewmen. The commander of the Podlaska Cavalry Brigade arrived and ordered the dead officer to be searched. Among his documents was the "*Jagdschein*" (Hunting Card) in which the dead lieutenant was referred to by name, which was: Herzog Victor Johannes von Ratibor, Furst von Conway und Prinz zu Hohenlohe, Waldenburg und Schillingfurst. As it later transpired, he had commanded the platoon of PzKpfw 35(t)s from Panzer Regiment 11 in 1st Light Division and had been sent on reconnaissance. That day the division had been transferred from another part of the front, moving into the Kampinos Forest in order to prevent the Polish cavalry from breaking through towards Warsaw, after losing the battle on the R Bzura.

'On the night 18/19 September, the Polish cavalry, which had been constantly in action, reached a small village called Sierakow. As it turned out, the Germans had already occupied the village, with follow-up troops of 1st Light Division, just a few hours earlier. After heavy fighting, the 7th Mounted Rifles and the 9th Uhlans of the Wielkopolska Cavalry Brigade, recaptured the village and ejected the enemy. Captain of Horse Zbigniew Szacherski, commander of the 7th Regiment recalled: ". . . It seemed incredible that our regiment did not suffer any losses in that action. The capture of Sierakow was tremendous: 34 trucks with equipment and nine machine guns. It was not quiet for long. . . . The enemy started to bring down heavy artillery fire onto Sierakow and our road." After the artillery fire, when it was almost daylight, the Germans began counter-attacking with an entire armoured battle group – comprising part of Panzer Regiment 11 commanded by Oberst (Colonel) Wilhelm Philipps and Panzer Battalion 65 under Maj Kurt Thomas. Both units were equipped with Czech tanks (PzKpfw 35(t)), which were one of the most modern and best light armoured combat vehicles of that period, superior to both PzKpfw I and II. Capt Szacherski remembers further: ". . . On a plain in front of us, only about 800 m away, there were swarms of German tanks – I counted at least thirty. However, as they were constantly moving counting was difficult, especially as I was continually disturbed by shellfire, so there could have been as many as fifty of them. We had artillery support from 2nd Battery, 7th Horse Artillery Battalion. . . This was the first battle in our sector not fought by men against men, but rather shellfire against steel. Suddenly, the front got even busier and so Gen Abraham sent in the tankettes. . . ."

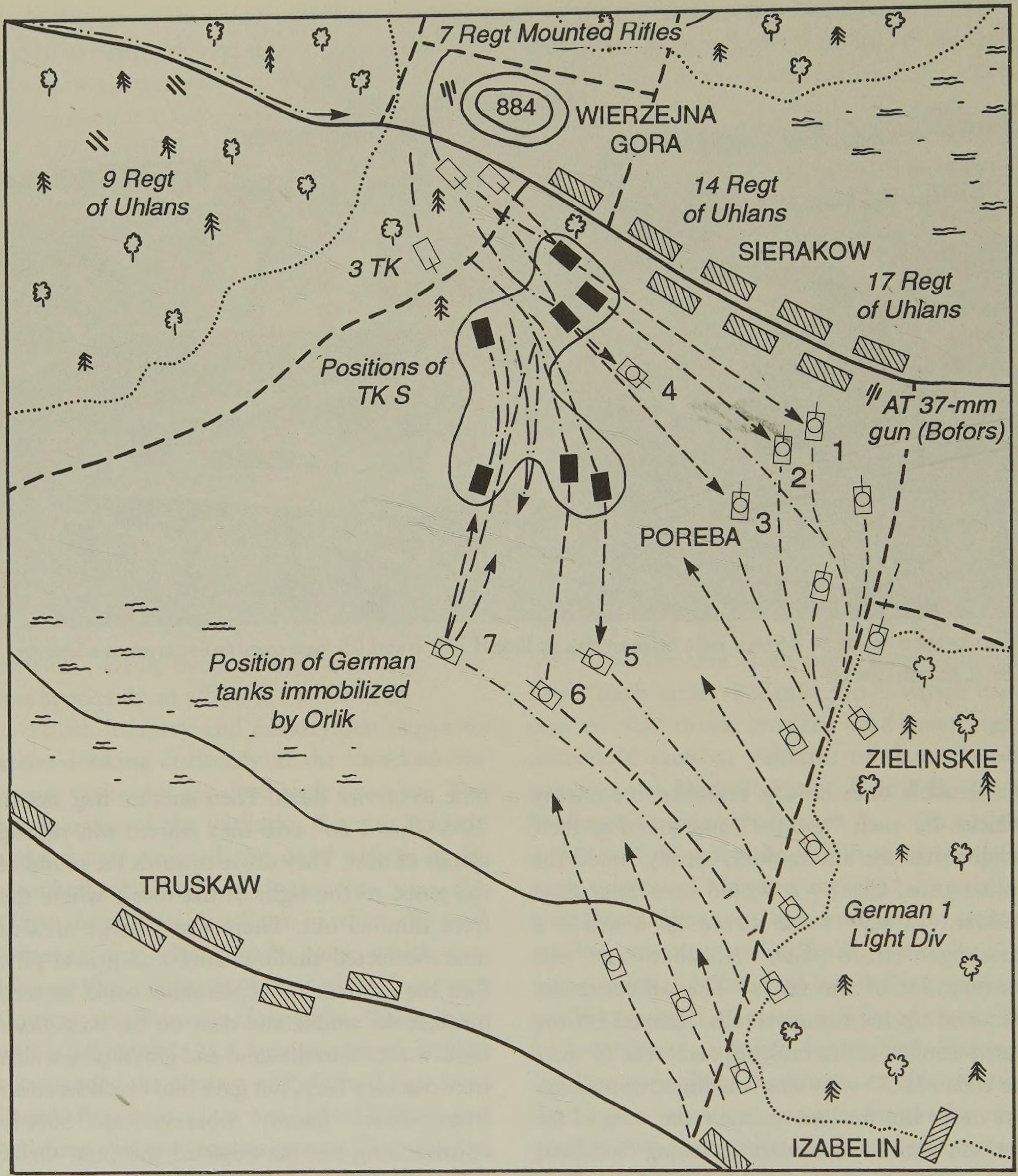
'All that was left of the squadron of reconnaissance tanks of the 71st Armoured Battalion was Roman Orlik's half-platoon. They had refuelled, rearmed with ammunition and were standing by. There was even ammunition for the guns captured with the German trucks,



This was the type of tankette, the TK S armed with a 20-mm automatic gun Model FK 1938, in which Orlik fought against the German panzers in September 1939. (J. Magnuski Collection)

the sensible ones having searched the enemy vehicles for such "goodies" and found to their delight that the ammunition ideally suited the Polish guns. Clearly it would be a busy day! Suddenly a new voice could be heard – a messenger from Gen Abraham to the commander of the tanks! The officer cadet buttoned up his linen overalls, jumped off the warm armour of his tankette and went to meet the Uhlan NCO who was running towards him. The order was for him to attack the wing of the German tanks which were attacking Sierakow, in order to help the cavalry. It was such a short and simple order – apparently the General remembered what had taken place in the woods the day before. Orlik did not hesitate. An order is an order. He waved his flag once[8] – engines started (they were good, made by Polish State Engineering Works ("PZinz")). They had worked well so far, despite there never being any time to service them. Then another flag signal: "Do what I do" and they started off, raising clouds of dust. They drove towards the sound of the guns, to the right of the forest where the trees thinned out. There was a large area of interconnected shallow sand and gravel pits, then the first houses of Sierakow could be seen through the smoke and dust on the battlefield. Orlik turned into the sand and gravel pits, which were not very deep, but gave him excellent cover from direct enemy observation. Slowly approaching the far edge of the pits, Orlik peered over the edge.

'The sight he saw would have scared anyone, especially after the orders he had received! On the large plain, framed by the distant belt of trees and houses, was a dark, moving mass, from which individual tanks could be seen only when they emerged from the main mass. All were enveloped in dust, as


7 Regt Mounted Rifles
884
WIERZEJNA GORA
9 Regt of Uhlans
14 Regt of Uhlans
SIERAKOW
17 Regt of Uhlans
3 TK
Positions of TK S
4
AT 37-mm gun (Bofors)
1
2
3
POREBA
7
5
6
Position of German tanks immobilized by Orlik
ZIELINSKIE
German 1 Light Div
TRUSKAW
IZABELIN

The fight for Sierakow, 19 September 1939. (Map: M. Komarnyckyj)

they moved steadily towards the village despite the shellfire that rained down on them. These were the German tanks he must attack with his three small "tin-boxes"! His immediate thought was: "It's suicide!", but he quickly dismissed such ideas. Everyone, especially the General, was counting on him. He worked out a simple plan, then called the other commanders to him and gave out his orders. They would get as close to the enemy

Warsaw, early in October 1939, during the first few days of Nazi occupation. Captured Polish Army equipment is being moved to a new location by the Germans. From left to right the vehicles are: TK S with 20-mm gun towed by a C2P small tracked artillery tractor and a half-track truck Model 1934. (J.Magnuski Collection)

as possible using the sunken passageways between the gravel pits to move up, then, at the last moment move out onto the plain, engage a chosen target, then quickly into reverse gear and back into hiding at high speed. After each action they would change location. His single tankette with its powerful cannon would do the firing, whilst the other two protected him from unexpected German attack. Orlik's tankette was the first to move. Before leaving the observation position he had noted two German tanks which were in front of the rest, firing fiercely at the village. They were the same type as those he had knocked out the previous day. His driver worked his way carefully forward, using every scrap of cover which the sunken pathways afforded. They were literally "creeping up" on the enemy. When the range was just a few hundred metres, they stopped. It would be too risky to get any closer.

'Orlik surveyed the scene through his gunsights. The enemy tanks were so close it was impossible to miss. He pulled the trigger and a bright flash appeared on the side of the German tank – then it stopped firing. The other one kept on, even after he had engaged it, so Orlik fired a burst at it – that silenced the enemy. Suddenly, his driver gave him a nudge. It was time to "escape". A third tank had by now worked out where the shots were coming from. It turned towards them and began to advance firing its gun, but fortunately wildly. Warmed up to the fight Orlik forgot to be careful, forgot the danger he was facing, forgot everything else except engaging the enemy. The German tank was getting closer, growing enormous in the gunsight. Orlik's first shot was short and ricocheted over the target. The German fired back, his round hitting the ground directly in front of the TK S. Orlik adjusted his sight, the barrel pointed slightly higher and the next burst also appeared to miss. The young cadet could feel his back prickle with sweat. . . . Was it the end? Then the 35(t) halted, its tracks stopped turning, its gun stopped firing. Above the turret arms appeared with hands raised. Figures in black uniforms climbed out – incredible, they were surrendering! The little TK S moved up, Orlik motioned for the German crewmen to sit on the outside of the tankette, then told his driver to return to their cover.

'Having handed over his prisoners, Orlik returned to the battlefield. Now he had the routine off pat. He left cover and knocked out a fourth enemy tank almost immediately. However, the three closest enemy tanks spotted him and turned in Orlik's direction. He managed to knock out two of them, but the third kept on, so Orlik had to take cover in one of the sunken paths. Then, at the "moment critique" he nipped out at top speed to engage the enemy tank at close range. Its crew had dismounted, clearly searching for his AFV, but when they saw the TK S appear they remounted and drove towards him, traversing their gun in his direction. Orlik sighted and pulled the trigger – Disaster! Instead of the gun firing there was just a weak click – the magazine was empty. Automatically he reached for another magazine only to discover that he had no more ammunition left, he had shot everything! "Reverse full speed!" he ordered his driver as the first German shell landed right in front of the TK S. "Zig-zag to the left, keep going!" Another German shell raised a cloud of dirt beside them. The engine roared loudly as the little tankette moved in all directions, the driver desperately trying to make it as difficult as possible for the enemy to hit the small TK S. A third shell hissed over the top of Orlik's head – a fewer centimetres lower and . . . then a severe jolt threw him backwards and he felt pain in his back. The next instant, they had rounded a corner and were safe in a covered location. A little later when Orlik looked back towards the enemy tank which had been pursuing him, he saw it standing immobilised, showing no signs of life and clearly abandoned by its crew.

'In front of the village the fighting was dying down. The Germans had lost some twenty tanks from the combined fire of the Polish 75 mm field guns and 37 mm anti-tank guns of the 7th Mounted Rifles. Seven of them had been knocked out by Roman Orlik's redoubtable 20 mm cannon. The 1st Light Division did not attack again that day and three days later were withdrawn to the area of Grojec to rest. Among German publications published after the war is one by Horst Scheibert on the "History of 6 Panzer Division 1939–45". On page 21 there is a photograph of a soldier's grave with the caption: "Grave of Capt von Kriegsheim, commander 1st Company Pz Abt 65, killed while leading his troop during the attack on Sierakow (18.9.39)." '

The text goes on to tell how the company had met a strong anti-tank artillery barrage. Lt Prinz von Ratibor was also killed nearby (Pz Regt 11). The author, who took part in these actions, writes further: '. . . On the road Laski–Sierakow, the 1st Light Division fought the heaviest fights of that campaign and after 19 September 1939 it was replaced by other Divisions.'

Out of the entire 71st Battalion only one tank reached Warsaw. It was the little TK S with the 20-mm cannon, commanded by Officer Cadet Sergeant Roman Orlik. After the collapse of the city it was taken over by the Germans. Orlik joined the Underground Resistance Movement and served in it throughout the German occupation.

Postwar he graduated from university, became an architect and designed buildings in Lodz, Piotrkow and Paliance. He finally settled in Opole where he designed the new theatre. Sadly he died in 1982 as the result of a street accident. For his courageous deeds during the Second World War he had been awarded Poland's highest military distinction – the Cross Virtuti Militari Vth Class.

Janusz Magnuski ends his story:

'. . . let us cite a few numbers from the documents kept in the archives of the Skoda Works. Out of the several dozens or so of PzKpfw 35(t)s lost by 1st Light Division in Poland, some were repaired in field workshops after the battles were over. Ten had major damage and were sent, at the end of September 1939, for general overhaul at the Skoda Plant in Pilzno. Nine of them – mainly with armour damage from anti-tank fire – after repair, were sent back to Wehrmacht troops (or handed on to Romania), or rebuilt into artillery tractors for mortars. Only one, with serial number 50323 (old Czech number 13889) was completely burnt out and was impossible to repair. It was scrapped in October 1939. Was it one of those hit by Orlik?'

NOTES

1. Quoted from *Reminiscences and Reflections*, Vol. 2, by Marshal of the Soviet Union G. Zhukov.
2. Gen A.P. Panfilov later became Major General of Tank Forces.
3. Among the other 'tank aces' in the 4th Tank/1st Guards Brigade, Lt A. Burda's crew had accounted for thirty enemy tanks in the same period, although Burda had six tanks 'shot from under him' in the process; Lt I. Lyubushkin got fifteen and was among the first Red Army soldiers to be made a Hero of the Soviet Union; Lt Lugovov knocked out thirteen; Senior Lt Rakhmetov eleven – he was also made a Hero of the Soviet Union, but posthumously; Capt A. Samokhin ten; Sgt P. Molkhanov seven. (Details quoted in *T-34/76* by Steve Zaloga).
4. Quoted in *Red Army Tank Commanders* by Richard N. Armstrong.
5. Ibid.
6. Ibid.
7. Ibid.
8. Clearly the tank commanders of the little tankettes used flag signals to communicate as no radios were fitted.

DER PANZERWAFFE

The Panzerwaffe in their black uniforms were among the élite of the German Army and were fortunate enough to be equipped with robust, well-designed and well-engineered tanks, with excellent firepower, which gave them a marked superiority over the Allies in tank versus tank engagements, especially in the early war years. Even the Soviet T-34, one of the best tanks ever designed, was usually no match for the German Tiger face to face. It was not until the closing stages of the war, when the American Pershing, British Comet and Russian Joseph Stalin appeared on the battlefield, that there was anything comparable – and even they were still hopelessly outclassed by the Königstiger and Jagdtiger. It was the combination of the incredible quantity of Allied armour, coupled with their air superiority, artillery and all arms support, that 'did' for the Panzerwaffe in the end. German tank aces, at least initially, had a better chance of survival in tank versus tank battles and were able to clock up large numbers of 'kills', before they were themselves knocked out. Thus it was a good deal easier for Michael Wittmann to survive than it was for his American counterpart, Lafe Pool. This is in no way meant to detract from the expertise and bravery of the German tank aces, as the following four stories will show, but merely to put the matter into perspective.

GENERAL MAJOR A. SCHULZ

One of the least heralded heroes of the German Army during the Second World War was Adalbert Schulz, who won that nation's highest military award[1] – the Knight's Cross (Ritterkreuz) with Oakleaves, Swords and Diamonds. The Knight's Cross of the Iron Cross was the highest decoration for bravery which could be awarded to members of the armed forces (Wehrmacht) of the Third Reich, having been instituted on 1 September 1939, at the same time as the Iron Cross itself was re-instituted. The Knight's Cross was the natural successor to the Imperial Pour le Merité, and as with the earlier award, it was worn around the neck (am halse). It comprised a cast-iron centre finished in matt or semi-matt black, on which was a swastika and the date of institution (1939), both normally polished. The centre was then held within a two-part silver frame with a beaded inner edge (finished in white silver oxide) and a burnished outer edge. At the centre of the upper arm of the cross was a small eyelet through which the ribbon loop passed – the ribbon being exactly the same as for the Iron Cross 2nd Class, but wider. On the reverse was the original date of the institution of the Iron Cross (1813). In order to recognize further meritorious action, four additional awards were instituted:

On 3 June 1940: The Oakleaves (Eichenlaub), which consisted of a spray of three silver oakleaves, the central one overlapping the other two.

On 15 July 1941: The Swords (Schwertern) and Oakleaves, which added two crossed silver swords welded to the Oakleaves. Only 159 were ever awarded.

On 15 July 1941: The Swords, Oakleaves and Diamonds (Brillanten). Handmade silver (later platinum) Oakleaves and Swords were set with numerous small diamonds. Only twenty-seven were ever awarded.

On 29 December 1944: The Golden Swords, Oakleaves and Diamonds. As for the Diamonds but with the Swords and Oakleaves made out of 18 carat gold, set with fifty diamonds. Only one was ever awarded.

General Major Adalbert 'Panzer' Schulz was born in Berlin in 1903 and was killed in action at Scheptowka in January 1944. He was always instantly recognized by his men because he invariably had a cigar in his mouth! (James Lucas)

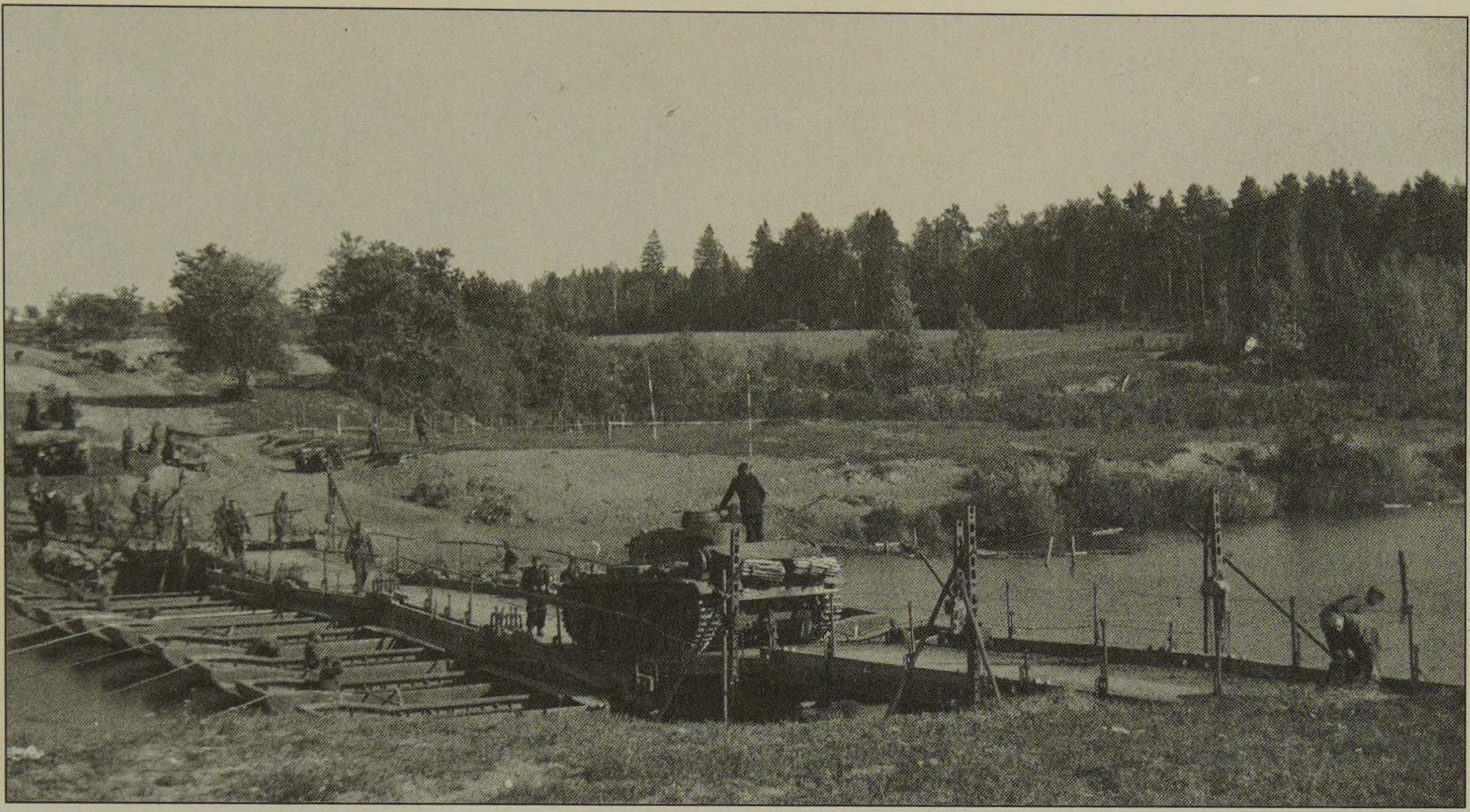
'Panzer' Schulz, as he was known by one and all, because of his bravery and legendary luck, was the ninth winner of the Diamonds, on 14 December 1943. The medal was awarded while he was commanding Panzer Regiment 25 (Pz Regt 25) in the 7th Panzer Division (7 Pz Div), which had been nicknamed the 'Ghost' Division when it was commanded by Erwin Rommel during the assault on France in May 1940. Born in Berlin on 20 December 1903, Schulz was originally destined for the banking profession, attending business school from 1923–4, but then gave it up to join the police in 1925. He was promoted to Oberleutnant (lieutenant) in 1934 and served with the police in Berlin until transferring to the Army when Hitler ordered German rearmament after renouncing the Versailles Treaty. Schulz was accepted as a senior lieutenant on 1 October 1935. He was then promoted to Hauptmann (captain) and served as a company commander in the 1st Battalion of Pz Regt 25 from 12 October 1937, taking part in the occupation of Austria, following the Anschluss (Connection) in March 1938, and then of the Sudentenland in October 1938. He commanded his company during the German Blitzkrieg on France in May 1940, heading the armoured advance towards Cherbourg and overrunning the Allied positions. For his bravery during that campaign he was awarded the Knight's Cross (presented on 29 September 1940). On 6 June 1940 he was promoted to command the battalion and was in command of Operation 'Barbarossa', when the German Panzerwaffe spearheaded the assault on the Soviet Union, 7 Pz Div being part of Hoth's Pz Gp III in Army Group Centre. He was to remain with 7 Pz Div for all his Army service, being first promoted to command Pz Regt 25 on 5 March 1943, then to command the 7 Pz Div on 1 January 1944, an appointment that would last only four weeks as he was killed at Schepetowka on 28 January 1944, his place being taken by Dr Karl Mauss, another Diamonds winner, who was awarded his Diamonds while still in command of the division during the Battle for Berlin in April 1945.

Schulz was an ideal tank commander, possessing ability, common sense, enthusiasm and dash. His men would follow him

Tanks of 7 Pz Div, followed by a mass of its soft-skinned vehicles, stand ready to debouch from the Somme River valley in early June 1940. Note the leading tanks are mainly PzKpfw 38(t)s 'acquired' from Czechoslovakia. (Tank Museum)

anywhere and he reciprocated by being both a friend and a father to them all. He next distinguished himself in the German invasion of Russia, when he pursued the confused mass of retreating enemy so vigorously that he was able to get behind them and cut off large numbers of Red Army soldiers who were subsequently taken prisoner. Later that winter he showed his abilities as a panzer commander in the area around Klin, where he attacked and destroyed a force *eight* times larger than his own, capturing vital ground in temperatures of forty below zero! Then, despite the appalling conditions, he put up such a vigorous defence that the enemy had to withdraw troops from other areas in order to make up a strike force to endeavour to evict him. However, Schulz was too clever for them; allowing the enemy force to get past his position, he then attacked them from the rear and forced them to withdraw. During the same period of operations he not only destroyed an entire Soviet Guards regiment ('Guards' was the title which the Red Army awarded only to their élite units), but also covered the withdrawal of other German troops, including a field hospital which contained some 4,000 wounded. These actions led to the award of the Oakleaves to his Knight's Cross on 31 December 1941.

By 1943 Schulz was an Oberstleutnant (lieutenant colonel), commanding Pz Regt 25, later he commanded 7 Pz Regt, still in 7 Pz Div,



A PzKpfw III crossing a pontoon bridge in Russia, during the summer of 1941. (Author's Collection)

now under the command of Gen Hasso von Manteuffel. The division had been sent to the southern sector of the Russian front after the fall of Stalingrad, where it had to defend against heavy Soviet attacks aimed at Rostov in early 1943. The Red Army had by now turned the tide and was on the offensive, putting the Germans under tremendous pressure. Hitler decided to counter the Soviet thrusts by launching Operation 'Citadel' in July 1943, which was basically a 'pincer' movement to cut off the Soviet bulge to the west of Kursk. This would lead to the largest tank battle of the war. 7 Pz Div was part of Gen der Panzer Truppe Hermann Breith's Panzer Corps on the extreme right of the southern pincer. The Soviets were well informed about the German intentions and brought up massive reserves. 7 Pz Div was attacked by a mass of tanks from the flank. However, before the division's thrust could be halted, Schulz's regiment came to the rescue, hitting the enemy so hard that they lost over thirty T-34s in a matter of minutes and had to retreat. For this action Schulz received his Swords on 6 August 1943, and was promoted to Oberst (full colonel). Finally, on 14 December 1943, he was awarded the supreme honour of the Diamonds. He was supposed to drive to Adolf Hitler's battle headquarters to receive his award personally from the hands of his Führer, but instead called them on the radio to say: 'I cannot leave, the Devil is loose here!'

The action for which Schulz was awarded his Diamonds took place in the Kiev area. The Red Army had been trying for some time to break through, softening up the German positions with heavy artillery bombardments. Schulz's regiment was in reserve, just behind the forward infantry foxholes, waiting in the vicinity of a small village for the order to counter-attack. As the enemy infantry charged in, Schulz sent his 1st Battalion to attack the flank of the Red Army assault, smashing into the Russian infantry and driving them back to

Oberst Schulz (centre) is here talking to General Hasso von Manteuffel (left), who was then commanding 7 Pz Div, and Oberst von Steinkeiler (with stick), near Shotimir. (James Lucas)

their start line. But the battle was far from over. Suddenly some sixty Russian tanks appeared – a mixture of their highly effective T-34 medium tanks and the heavier KV-1s. If they reached the German infantry positions then the battle would be lost. Schulz therefore launched his 2nd Battalion, again taking the enemy in the flank. Surprise was complete and all sixty enemy tanks were destroyed. Schulz now decided to follow up this success, seizing the initiative and driving over the Soviet trenches and on through their artillery gun lines, destroying the heavy guns and rocket batteries with which they had pounded the German positions. Linking up with his 1st Battalion, he expanded his attack, but soon found himself faced by overwhelming enemy armoured forces, which attempted to encircle and cut him off. Schulz's panzers had to fight their way back to their own lines, destroying over 150 enemy T-34s en route. For this and other decisive actions, the cigar-smoking 'Panzer' Schulz received the Fatherland's highest award.

During the winter of 1943/4, 7 Pz Div was constantly in the thick of the fighting, taking heavy casualties in November in the withdrawal from Kiev. The division was invariably used as a mobile reserve, being employed to cover gaps, eliminate enemy breakthroughs, and to deal with any emergency which presented itself.

'Panzer' Schulz, plus his trademark cigar, being interviewed by war commentator Heinz Maegerlein, on 14 December 1943, after the award of the Diamonds to his Knight's Cross. (James Lucas)

During this period, the divisional commander was ordered to go to command another division. However, he requested that he remain until a suitable opportunity presented itself for him to hand over to Oberst 'Panzer' Schulz. This occurred on 1 January 1944 when the newly appointed divisional commander was able to visit the Führer's headquarters to receive his Diamonds and to be promoted on the spot to major general. Sadly, he would not remain in command for very long.

After a short home leave he returned to the front where he found that the division had been redeployed to the Schepetowka area and was preparing to mount a counter-attack. This took place, but did not achieve success, becoming rapidly bogged down along the entire front line. Schulz decided to try to get the attack going again from a flank, and went up to carry out a personal reconnaissance, then to give out orders to his panzer commanders. Travelling in a small armoured scout car, he was heavily shelled. Fragments hit Schulz in the head and mortally wounded him. He was rushed to hospital, but died on the way without regaining consciousness. The communiqué announcing his death contained the words: 'The fate and conduct of this man are a shining example to all.'

GENERALLEUTNANT H. GRAF STRACHWITZ VON GROSS-ZAUCHE UND CAMMINETZ

Hyazinth Graf (Count) Strachwitz was the eleventh winner of the Diamonds, awarded to him when he was a Panzerkampfgruppe commander. He was also the holder of the German Cross in Gold. This latter decoration was first instituted on 28 September 1941 and

Wounded no less than fourteen times, Generalleutnant Hyazinth Graf (Count) Strachwitz was popularly called 'The Panzer Graf'. He was taken prisoner in the First World War while on a daring scouting mission behind enemy lines. His career during the Second World War was equally exciting, his Tiger tanks spreading havoc wherever they fought. (IWM – MH 6098 via James Lucas) was to recognize bravery which was more than sufficient to warrant the Iron Cross 1st Class, but not up to the level required to be awarded the Knight's Cross. It was a useful decoration because it could be bestowed upon a Knight's Cross winner, to show appreciation of his continued heroism. Designed by Professor Klein, it consisted of a large black enamelled Swastika, outlined in gold and set into a silver field around which was a golden wreath of laurel leaves, bearing at the bottom the date '1941'. From the wreath emanated rays which covered the eight points of a gold star. The rear had the recipient's name and the medal number. It was worn on the breast.

Hyazinth Strachwitz was born on 30 July 1893 in the family castle at Gross Stein, his unusual Christian name coming from a Silesian saint to whom the family chapel was dedicated. In fact, the first-born son of each generation of the Strachwitz family had been given the name Hyazinth for over 700 years. Over the centuries his family had served in the armies of the Hohenzollerons, both when they were Electors of Brandenburg (1417–1688) and Kings of Prussia (1701–1861), continuing on when they became the Emperors of Germany (1871–1918). Thus, like his forebears, Hyazinth joined the Imperial Army, being personally sponsored by the Kaiser and gaining a commission in the élite Garde du Corps cuirassier regiment – truly the crème de la crème. It was with this élite regiment that he proudly went to war in the autumn of 1914. He was a brilliant horseman, swordsman and athlete, and would, like an American cavalryman and future great tank commander, Gen George S. Patton, Jr, have represented his country in the 1916 Olympic Games at pentathlon (riding, pistol shooting, fencing, swimming and running) had not the war intervened.[2]

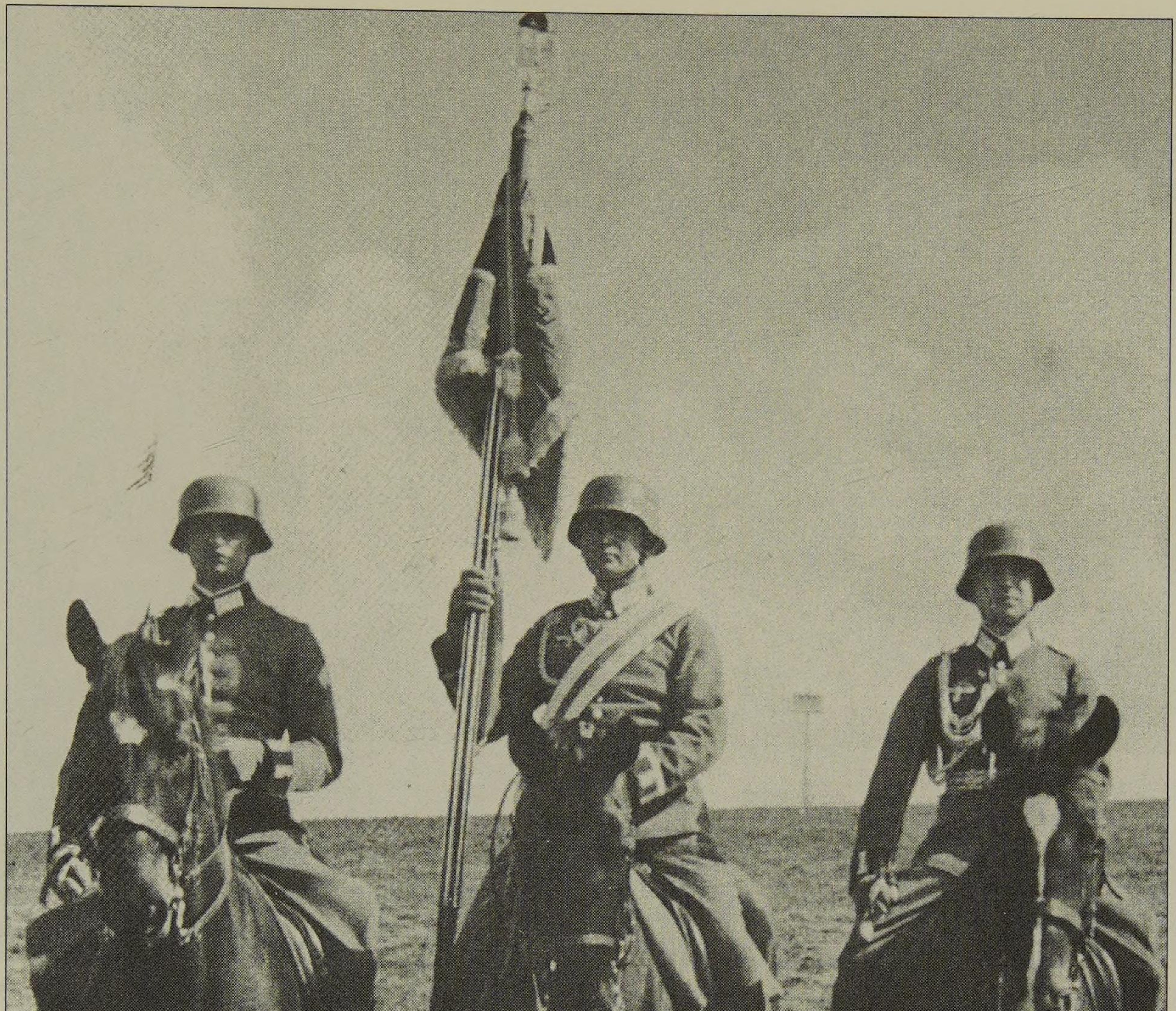
Initially, Graf Hyazinth had a most exciting war, volunteering with other members of his troop, for long-range patrol work behind enemy lines, not just to collect information but also to carry out numerous acts of sabotage in order to spread confusion and terror among the civilian population. He had many hair-raising escapes, in one losing all the patrol's horses and having to continue operations on foot. Another time when, soaked to the skin, they had stripped off to get dry, they were heavily attacked by a large force of French colonial troops. They were forced to make a run for it, leaving behind most of their uniforms, so the count had to buy what clothes he could locally! This inevitably meant, that, dressed as civilians, they could be executed as spies and saboteurs if caught – as inevitably they were. Hyazinth then spent an uncomfortable period, being tried, threatened with execution, having his sentence commuted, thinking he was going to be sent to a penal colony, being reprieved and incarcerated elsewhere and all the time his health was deteriorating. Eventually, he was put into a proper POW camp, tried to escape but was recaptured after being seriously hurt during a fall. He was again sentenced to death, but at the last moment he was spared, by the intervention of the Swiss Red Cross, who insisted on him being sent to Switzerland to recover from his injuries which had gone sceptic. Once back to full health, and hearing he was to be sent back to a POW camp, he feigned madness so convincingly that he was put in an asylum where he stayed until the end of the war.

When he returned home in 1918, he found Germany completely changed and, as a member of the Freikorps,[3] he had to fight to help maintain stability in Upper Silesia, against Polish irregular forces, who were claiming that area of Germany as part of the newly forming state of Poland. Strachwitz gained a great reputation for bravery and leadership, so much so that the Poles put a price on his head. He was chosen to lead one of the final attacks against the Poles, around the tactically important Annaberg hill feature, taking it after fierce hand-to-hand fighting. Eventually, when the war was over, he returned to running his estates, but could not settle, so decided to join the Army again.

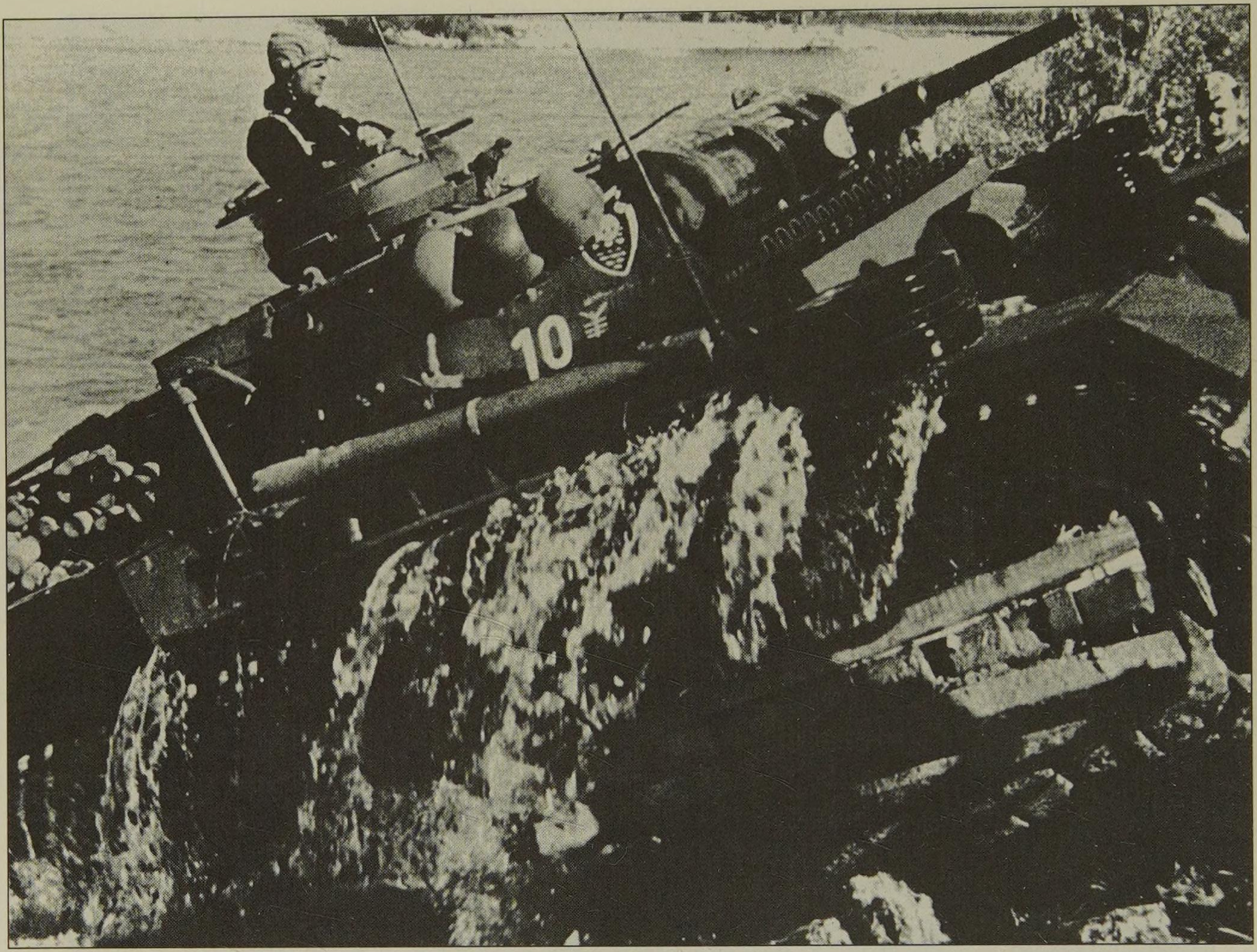
The Versailles Treaty had limited the German forces to only 100,000 men, containing just seven infantry and three cavalry divisions. However, from the mid-thirties, the Nazis first covertly, then quite openly began a major expansion and modernization of all the three armed Services of the Wehrmacht, at the same time building warships, aircraft and modern armoured fighting vehicles. The count, who still held a reserve commission, happened to attend some army manoeuvres in 1934 and saw, for the very first time, the power and manoeuvrability of armoured forces, and quickly decided that this would be his choice of arm for the future. His application was approved and he was soon gazetted, being one of a large influx of men posted into Pz Regt 2 in 1935, which had been formed in secret the previous year (1 November 1934) as part of the first (and at that time the only) panzer division. In October 1935 Gen Lutz announced the formation of three more panzer divisions and three independent panzer brigades, Pz Regt 2 being allocated to 1 Pz Bde in 1 Pz Div. The count would fight with them in Poland, France and the Balkans, before taking part in Operation 'Barbarossa' (the invasion of USSR). In Poland, he earned a reputation for daring and bravery, which was enhanced in France. James Lucas, in his book *Hitler's Enforcers*, tells of one such an event. Strachwitz and his driver found themselves isolated in a French town, driving directly towards a military barracks. He realized that if he turned and fled he would be fired upon. So instead, he dismounted from his panzer and boldly walked up to the sentry of the main gate and demanded to see the orderly officer – in fluent French naturally! He then told the officer that unless he obtained an immediate surrender of all the forces in the barracks, he would order his panzer regiment to open fire. They did so, the entire garrison laying down their arms!

Strachwitz was commanding a tank battalion in Pz Div 18 during the invasion of Russia, his tanks deep wading the River Bug. He had the divisional commander, Gen Walther Nehring, with him in his tank and, when they arrived at the other side and Nehring had dismounted, the count went on into action, destroying an entire column of 300 Russian lorries and a number of artillery pieces. Then, with typical élan, he broke through the front line to attack enemy reserve formations in their rear areas. His operations were not only confined to offensive raids, and during this period he showed himself just as successful in defence, counter-attacking Russian tanks which had broken through the German lines and then driving them back through their own. In one particular action, for which he was awarded his first Knight's Cross, he pursued them so fiercely by day and night that he again broke through the Soviet front line and pushed on into their artillery gun lines, knocking out many field pieces. He firmly believed that tanks should not be allowed to stand idle, and had a reputation for driving his soldiers just as hard as he drove himself, which was always to the very limits.

In the summer offensive of 1942 Strachwitz – now known to one and all as 'The Panzer Graf' – was in the van, being the first German AFV into Stalingrad, making a deep penetration close to a Soviet-held aerodrome. He managed to get his panzers right up to the airfield undetected, thanks to their excellent camouflage, then opened devastating fire on the aircraft trying to land, in total destroying just under 160! The count went on operating aggressively; even when the Soviets had managed to encircle and contain most of the



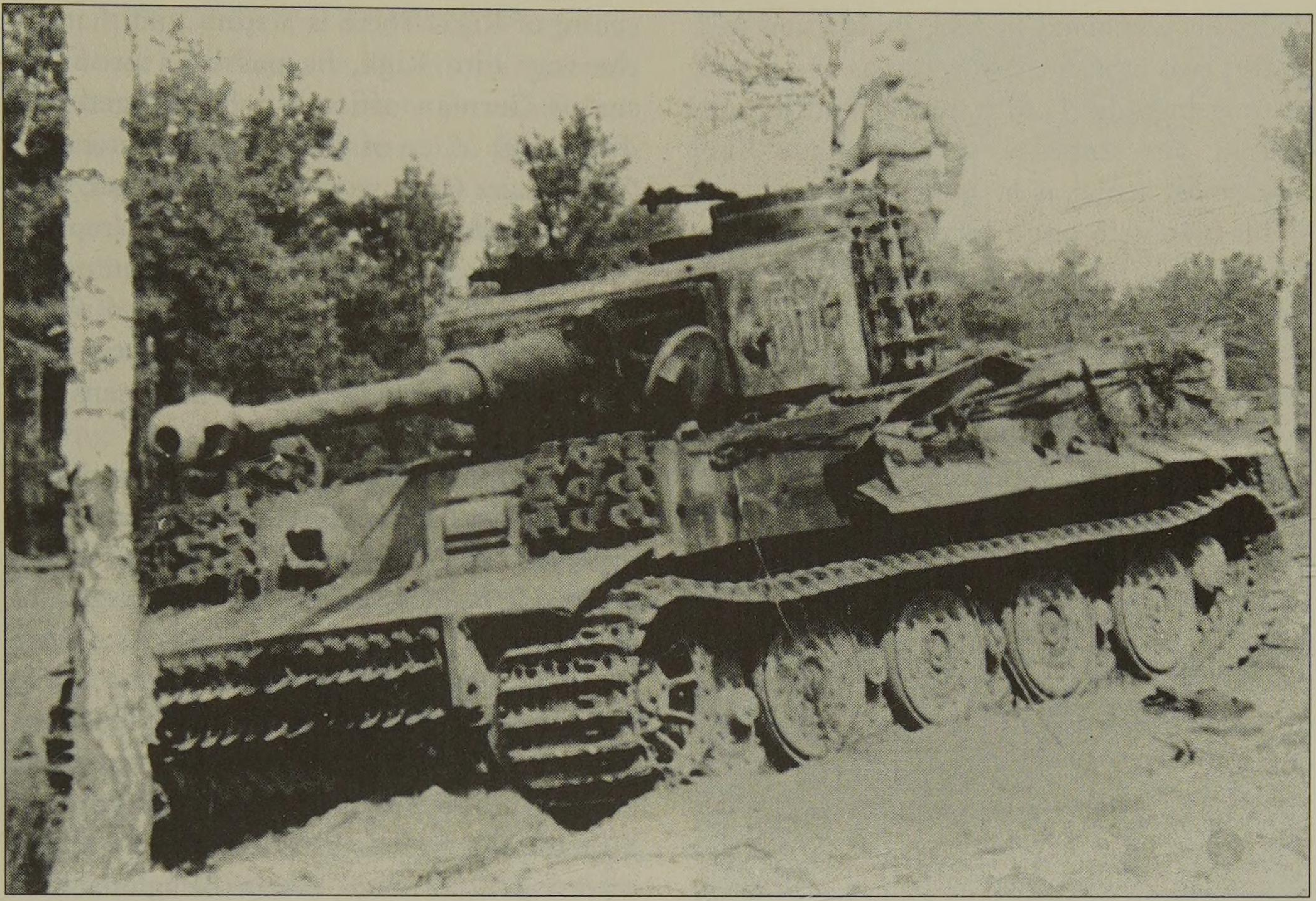
The Standard of 1 Cav Div. After the First World War, under the terms of the Versailles Treaty, the German Army was allowed only three cavalry divisions. Count von Strachwitz served as a Rittmeister (a captain of cavalry) from 1935, with a reserve cavalry regiment (RR 7). (Ernst J. Dohany)



Operation 'Barbarossa'. 'The Panzer Graf' took part in the amphibious crossing of the River Bug which opened the German invasion of Russia on 22 June 1941. (Tank Museum)

German forces, his lightning forays continued to harass them, and he captured from the enemy all the supplies he and his force needed to survive. Hitler's nonsensical order to stop attempting a break-out and instead to reoccupy and hold their old positions was achieved, but only with considerable loss, Strachwitz's few panzers now being the core of the German defence. It was during this period that he earned his Oakleaves in a remarkable operation. A column of enemy T-34 medium tanks had approached the area where his small group of tanks were hidden, well camouflaged, waiting in ambush positions for the enemy. Instead of breaking cover and engaging them, Hyazinth waited, because he reckoned – rightly as it later proved – that he had every chance of drawing them all into the ambush. His scheme worked perfectly and, within an hour, they had knocked out over 150 enemy tanks – a phenomenal number when one appreciates that not a single one of Strachwitz's tank force had even been hit. A few days later, he was severely wounded and evacuated, so missed the final German surrender at Stalingrad, although his old units had by then been completely destroyed. He was still in hospital when he heard about the award of his Oakleaves.

Next, Strachwitz was given command of a Tiger battalion in the crack Grossdeutschland



'The Panzer Graf' was selected as the first regimental commander to receive a Tiger battalion for front-line testing in 1943 during the Battle of Belgorod. (Tank Museum)

Division, getting his first chance to test its effectiveness during the battle for Kharkov in 1943. Once again the Germans were hidebound by another of Hitler's 'no surrender' orders. However, Generalfeldmarschall (field marshal) Manstein, the German commander, deliberately decided to go against Hitler's orders, evacuating Kharkov, waiting until the Red Army assault overreached itself, then re-taking the city during his counter-offensive. During this battle, 'The Panzer Graf' was involved in a major tank battle against a large column of Soviet T-34s and heavy KV-1s and 2s in which he was to win his Swords. He was occupying a forward tactical OP and watched the enemy armour pouring over the slopes less than a mile away. Instead of engaging the enemy tanks immediately, he kept his forces concealed all night, allowing the enemy to press forward, until they eventually stopped, waiting for dawn, then began to advance again on the still unseen Tigers. At first light, when the enemy resumed their advance, they found themselves engaged at almost point-blank range, the 88s on the Tigers inflicting terrible destruction. Within minutes eighteen of the Soviet tanks were on fire, the remainder tried to withdraw but without success, and the entire group was destroyed.

On 1 April 1944 the count was promoted to Generalleutnant (major general) – quite a feat for a reserve officer – to command 1 Pz Div. Then, in the autumn, he was appointed commander (armour) to Army Group North.

Under his command he had, in addition to 1 Pz Div, two other panzer divisions and a tank hunting brigade. During this period he also carried out some very 'un-general like' operations, acting as he loved to act, namely, on his own with just a small armoured force, relying on his dash and élan, to win incredible victories out of all proportion to the size of his force. The coveted Diamonds award came from such actions, first in Tuccum, then in the Riga area, during operations to recapture the Latvian port. Operating independently, with a small group of just ten Tiger tanks and fifteen APCs, Strachwitz moved in a southward looping drive around Tuccum, capturing a vital river bridge en route and taking its garrison prisoner, then shooting up Red Army columns on the road into town. On his approach, he saw a complete battalion of forty-eight tanks in the city, drawn up as though they were preparing for a parade. Fortunately, he had with him the gunnery officer of the German battleship *Lutzow*, who was able to bring the warship's 11-in guns to bear, knocking out most of the enemy vehicles which were packed nose to tail in the streets. Strachwitz then dealt with the remainder, knocking them out then taking over the town and refilling his tanks from a nearby Russian petrol point. Leaving some of his force to hold Tuccum, he moved northward with just four Tigers and his APCs. A Soviet armoured corps and two infantry divisions were moving forward to recapture the town but, on seeing the German tanks in their rear, mistakenly thought their entire group was surrounded and surrendered their complete force to Strachwitz, who left some of his transport lorries to guard them and moved on towards Riga. On the outskirts he destroyed a number of enemy tanks, captured a field hospital and then broke through the main Russian lines into the centre of Riga. There is a story told that, on the way into Riga, he passed a group of senior German officers, who flagged him down with cries of 'Well done Lieutenant!' 'The Panzer Graf' wore no rank badges, so it was an understandable mistake. He replied, 'You're not talking to a lieutenant, I'm only a general!' This particular operation led to the capture of 18,000 prisoners, 28 batteries of artillery, and many tanks, anti-tank guns and other weapons.

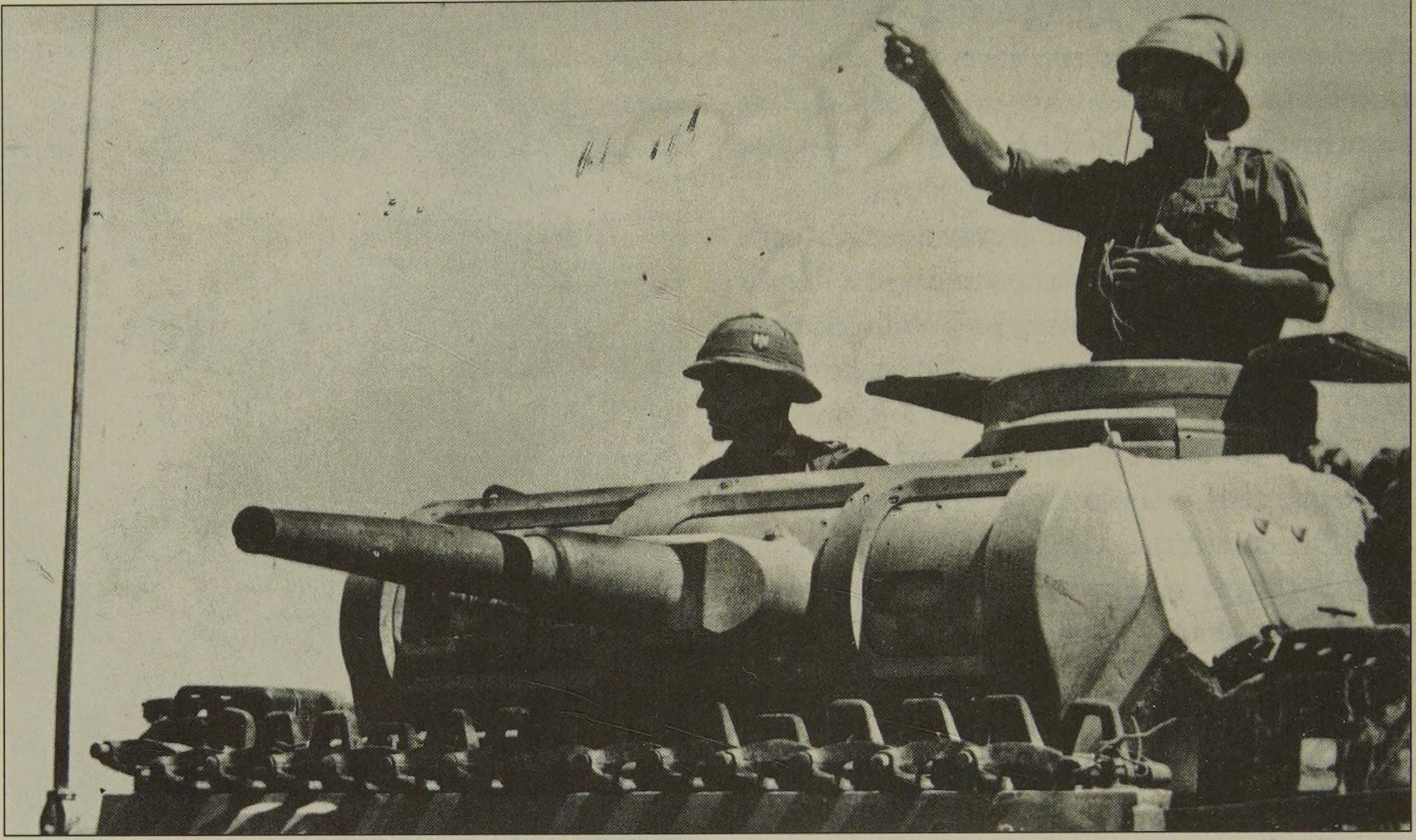
Shortly after gaining his Diamonds, during a visit to one of his divisions, Strachwitz was involved in a very nasty car crash, which resulted in severe injuries to his arms, legs, ribs and a fractured skull. He survived – someone who had been wounded so many times would not let a mere car accident kill him! However, the doctors held out little hope for a complete recovery. But they had reckoned without Strachwitz's iron will-power. Soon he was reporting 'fit for duty', despite being unable to walk without crutches. He formed an 8,000 strong anti-tank brigade at Bad Kudova, but it did not see any major action and eventually surrendered to the US Army in Bavaria after travelling through the Sudentenland with his adjutant. The partition of Germany meant that all Strachwitz's estates in Silesia had been confiscated by the Soviets; when the count was released from POW camp, therefore, he had to begin entirely again. His wife and his younger son had been killed in a traffic accident during the war and the rest of his family dispersed. He was invited to assist Syria with the reorganization of its army and agriculture, and this he did most successfully. However, a coup overthrew the government and he was forced to leave in haste, accompanied by his new, young wife. Penniless once again, he returned to Germany in 1951, lived on a small estate in Bavaria and died in 1968, the Bundeswehr mounting an honour guard on his coffin.

OBERST J. KÜMMEL

The *Löwe von Capuzzo* ('Lion of Capuzzo'), as Johannes Kümmel came to be called, was born in Coswig in Saxony on 21 July 1909, joined the Reichswehr in 1928 and rose to the rank of Unteroffizier (equivalent to lance sergeant). In 1938 he was posted to Pz Regt 8 of 10 Pz Div, then forming at Boblingen near Stuttgart. In 1939 he was an Oberfeldwebel (WO) and tank platoon leader in 1 Company, during the assault on Poland and, on 27 September, was awarded the Iron Cross 2nd Class after taking part in numerous infantry/tank operations which included knocking out three Polish light tanks. Then, on 20 October 1939, he was awarded the Iron Cross 1st Class for knocking out four more enemy tanks, and soon afterwards was commissioned as an Oberstleutnant. A few months later, on 1 April 1940, he was promoted to Hauptmann and appointed to command 1 Company in Pz Regt 8. In May 1940, 10 Pz Div played a vital role in the attack on France and the Low Countries, being part of Guderian's XIX Panzer Corps, which broke through the French lines at Sedan and penetrated all the way to the English Channel. Kümmel was always in the vanguard and on 5 June 1940, during the second phase of the operations, he was blown up by a mine and slightly wounded. After the eventual surrender of France, Hitler turned his attentions elsewhere, including the provision of some assistance to his hapless Italian ally, whose Tenth Italian Army in Cyrenaica was about to suffer a heavy defeat at the hands of the British.

On 18 January 1941 Pz Regt 8 was moved from 10 Pz Div to 15 Pz Div, which was destined to join 5 Leichte Division as the original two divisions in Gen Erwin Rommel's DAK. Troops of 5 Leichte arrived first but by mid-May 15 Pz Div had completed its move, Pz Regt 8 having arrived in three convoys on 24 April, 2 and 6 May. The regiment had a total of 146 tanks, including 71 PzKpfw IIIs and 20 PzKpfw IVs, the rest being lighter Is and IIs, or command tanks (Befelswagen). They were soon heavily engaged against the British, who had launched a major frontal attack on the German/Italian positions, known as Operation 'Battleaxe', which began on 15 June. At Halfaya Pass, Hauptmann Wilhelm Bach held his positions against all comers, while 15 Pz Div was heavily engaged by other British units, who were storming the DAK positions at Capuzzo and Sollum and attacking Bardia with fifty tanks from 7 Armd Div. The attack was stalled by a single

Oberst Johannes Kümmel, 'The Lion of Capuzzo', who won both the Knight's Cross and the Oakleaves with the Afrika Korps in the Western Desert. (Panzermuseum)



Oberleutnant Kümmel in his PzKpfw III Ausf E/F with its 3.7cm KwK L/45 gun. He and his crewman are wearing the tropical pith helmet, which was generally unpopular with front-line troops. (Lawrence Brooksby)

88-mm anti-tank gun, which knocked out three of the leading tanks. The rest halted, put down smoke and sought cover. The delay was enough to allow the tanks of Pz Regt 8 to reach the battle. They immediately swung into the attack, with the 1st Battalion leading. Kümmel was in the front of his company, with two PzKpfw IVs, both armed with the short-barrelled 75-mm KwK 37, which could only penetrate 43 mm of armour at best and thus needed to get close to its targets. He was standing up in his turret – when the hatches were closed the temperature inside a tank soon became unbearable in the desert – as he led his tanks through the enemy fire until they were in range. Then they halted and opened fire, knocking out one of the leading Matildas in the first salvo. At that moment the company's PzKpfw IIIs arrived and they also opened fire. As one observer said afterwards, it was as though 'all around all hell had broken loose. Shells hammered into the ground, throwing up fountains of sand.'

Suddenly there was a crash behind him and Kümmel's 2IC, Oberleutnant Peters, came on the radio to say that his tank had been hit and he and his crew must bale out, so could Kümmel give them covering fire. Traversing his turret, Kümmel saw two enemy tanks off to a flank, firing at the burning panzer, so he engaged them while Peters dragged his wounded radio operator clear. Kümmel quickly knocked out both enemy tanks then, turning, continued the advance, his company driving right into the middle of a British anti-tank gun company, crushing the guns under their tracks. As the battle developed, involving the entire regiment, another group of twenty British Matildas was observed travelling at speed towards the regiment's left flank. The

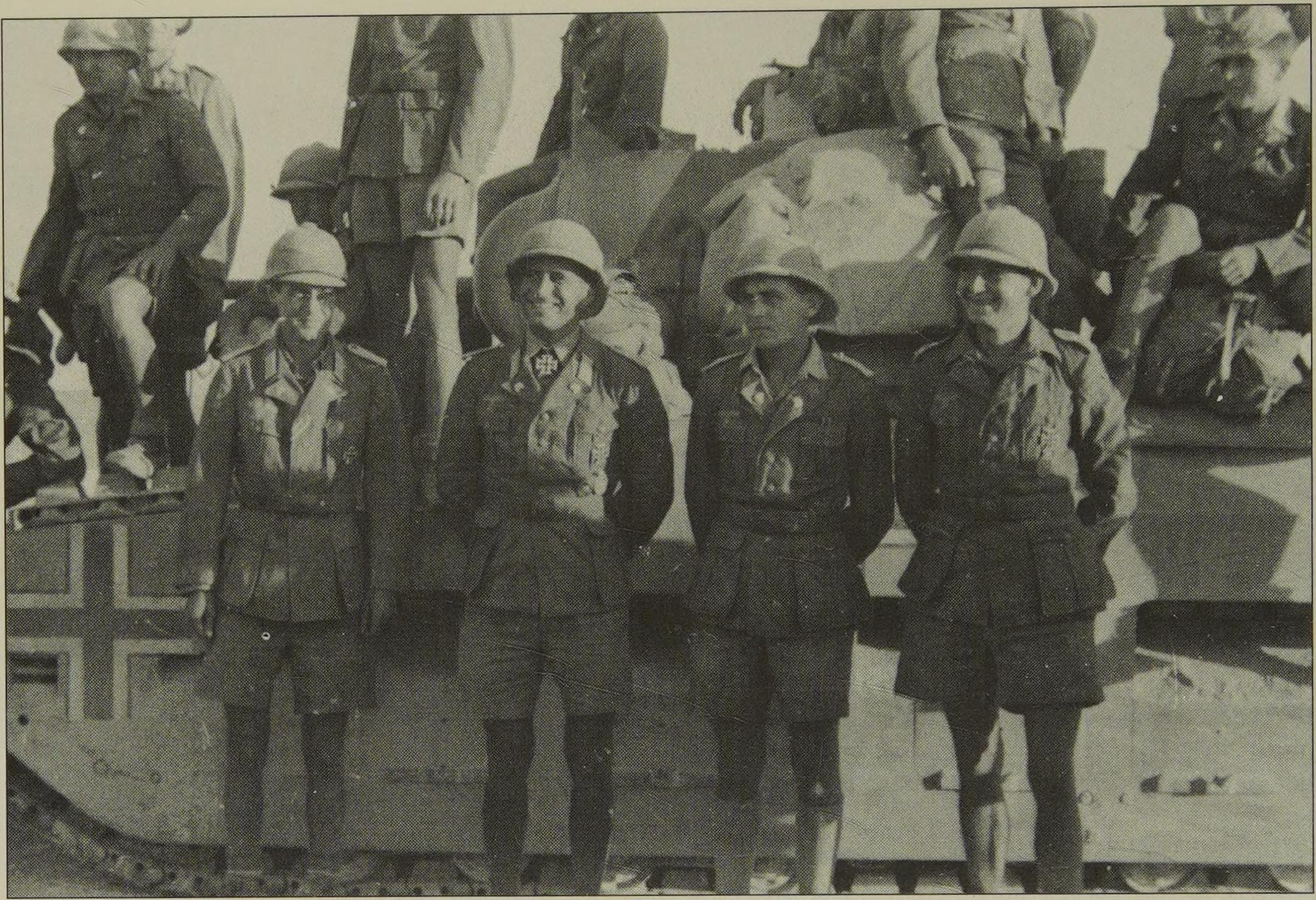
Kümmel (in the centre) and some other officers from Pz Regt 7 enjoy a drink during a short, unexpectedly peaceful interlude. (Panzermuseum)

CO, Oberst Hans Cramer, ordered Kümmel to take on the enemy formation and protect their flank. Kümmel did so, accompanied by about half his company, including the two PzKpfw IVs, and it was Kümmel's group which really did the damage. In a short time Kümmel and his two Mk IVs destroyed eight British tanks, thus restoring the situation. The battle continued with both sides taking heavy casualties, half of Kümmel's company was missing and the other companies had suffered similar loss. However, they had stopped the British advance and inflicted heavy casualties.

When he heard about Kümmel's heroic action, the commander of 15 Pz Div – Generalleutnant Neumann-Silkow – recommended him for the Knight's Cross, the citation reading:

'The attack by Hauptmann Kümmel against the superior enemy tank force west and northwest of Capuzzo, was a result of his own initiative. Through boldness of this decision and the uncompromising execution of the same, he prevented the enemy from advancing farther to the north, where the combat train, which was just departing, would have been caught and destroyed. Without the combat train which kept Pz Regt 8 supplied with vital fuel and ammunition during the three-day battle in the desert, the successful halting and subsequent destruction of considerable enemy tank forces would have been impossible.'

The Knight's Cross was awarded to Kümmel on 9 July 1941. Some days before, on 18 June, when it had been confirmed that



Hauptmann Kümmel (wearing his Knight's Cross) and his crew pose in front of a captured British Matilda Mk II. They are wearing tropical uniforms (field blouse and shorts). (Lawrence Brooksby)

he would receive the medal, Kümmel awoke to the grinning faces of his soldiers. 'Is something the matter, Zimmerman?' he enquired.

'Not that I know of, Herr Hauptmann', replied the private.

A short while later, when Kümmel went to his tank, he saw that a 'roaring lion' had been painted on its side, with the inscription '*Löwe von Capuzzo*' beneath it. 'Kruschinski!' shouted Kümmel, and the Unterfeldwebel (sergeant) crawled out from under the tank and acknowledged his summons. 'What's with this billy-goat?' asked the Hauptmann.

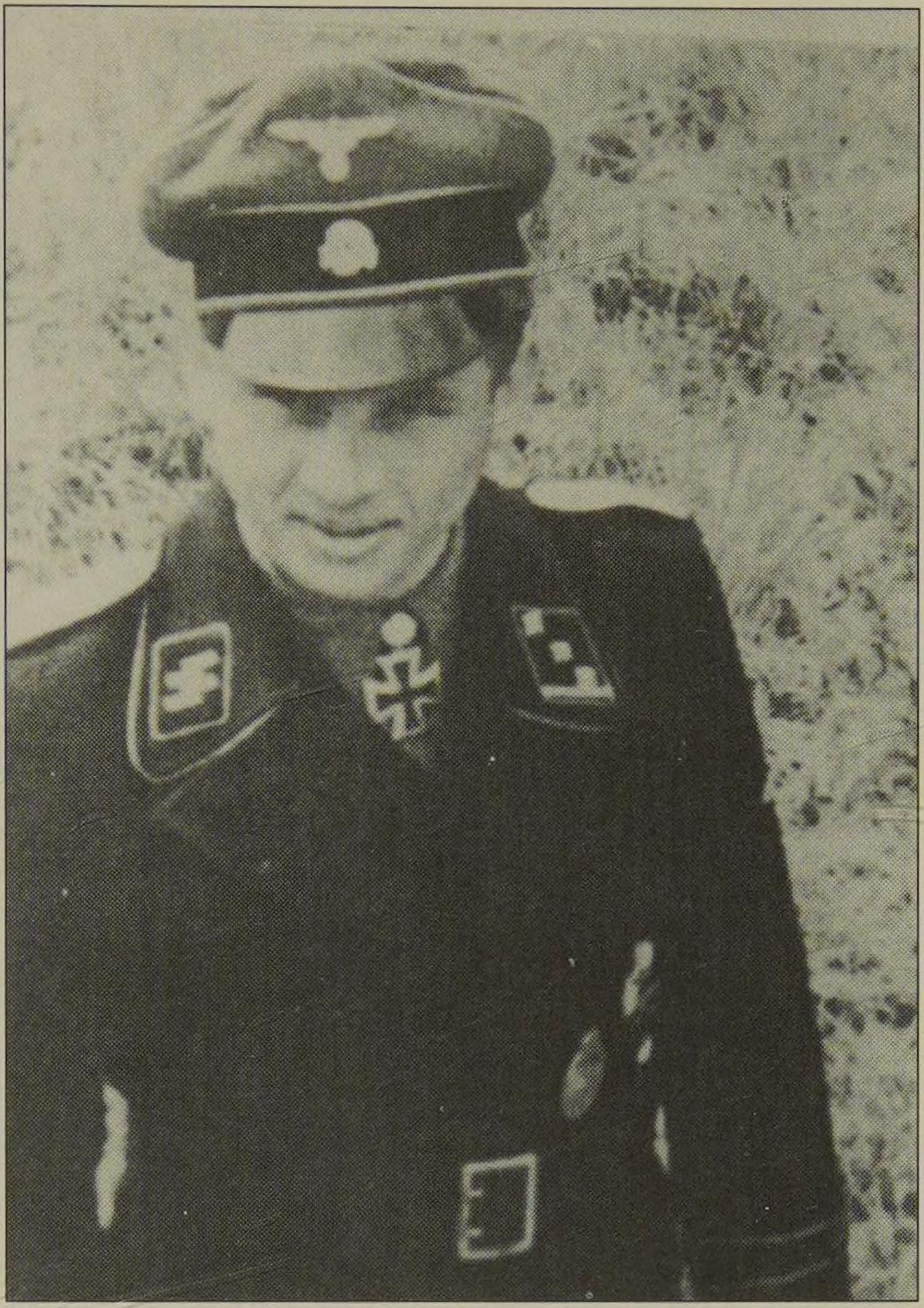
'From now on this will be your motto, Herr Hauptmann. You will be known as the *Löwe von Capuzzo*.' And it was .true – although Kümmel might remove the painting from his tank, he never lost his nickname!

In May 1942 Kümmel was promoted to command the 1st Battalion in time to lead it when the DAK went onto the offensive once again on 26 May. On 15 June his battalion was the first unit to reach the coast, and that evening his tanks overran Fort Piastrino. Tobruk fell on 21 June and Kümmel was awarded the Oakleaves to his Knight's Cross on 11 October 1942. The following month he was crossposted to command Pz Bn 7 and promoted to major on 1 December. His next move was to leave North Africa and to serve as an Oberstleutnant at HQ XIV Panzer Corps in south Italy. Then, in October 1943, he was appointed to command Pz Regt 26 in

26 Pz Div, and in January 1944 was involved in the attack, on the 30th, which was supposed to destroy the enemy bridgehead at Anzio-Nettuno. It failed and a second assault was ordered to begin on 27 February. However, the day before, Kümmel, while on a reconnaissance in his staff car, was killed in a road accident near Cisterna. On 20 May 1944 he was posthumously promoted to full Oberst (colonel), a fitting honour for a brave soldier. A plaque in the town hall at Boblingen records his achievements with the words: 'Ehrung, des Eichenlaubtragers Major Kümmel auf dem Rathaus in Boblingen am 7 April 1943' [Honour this Oakleaf holder Maj Kümmel at the Town Hall in Boblingen on 7 April 1943]. The plaque must have been erected therefore to celebrate the award of the Oakleaves and not to commemorate his death.

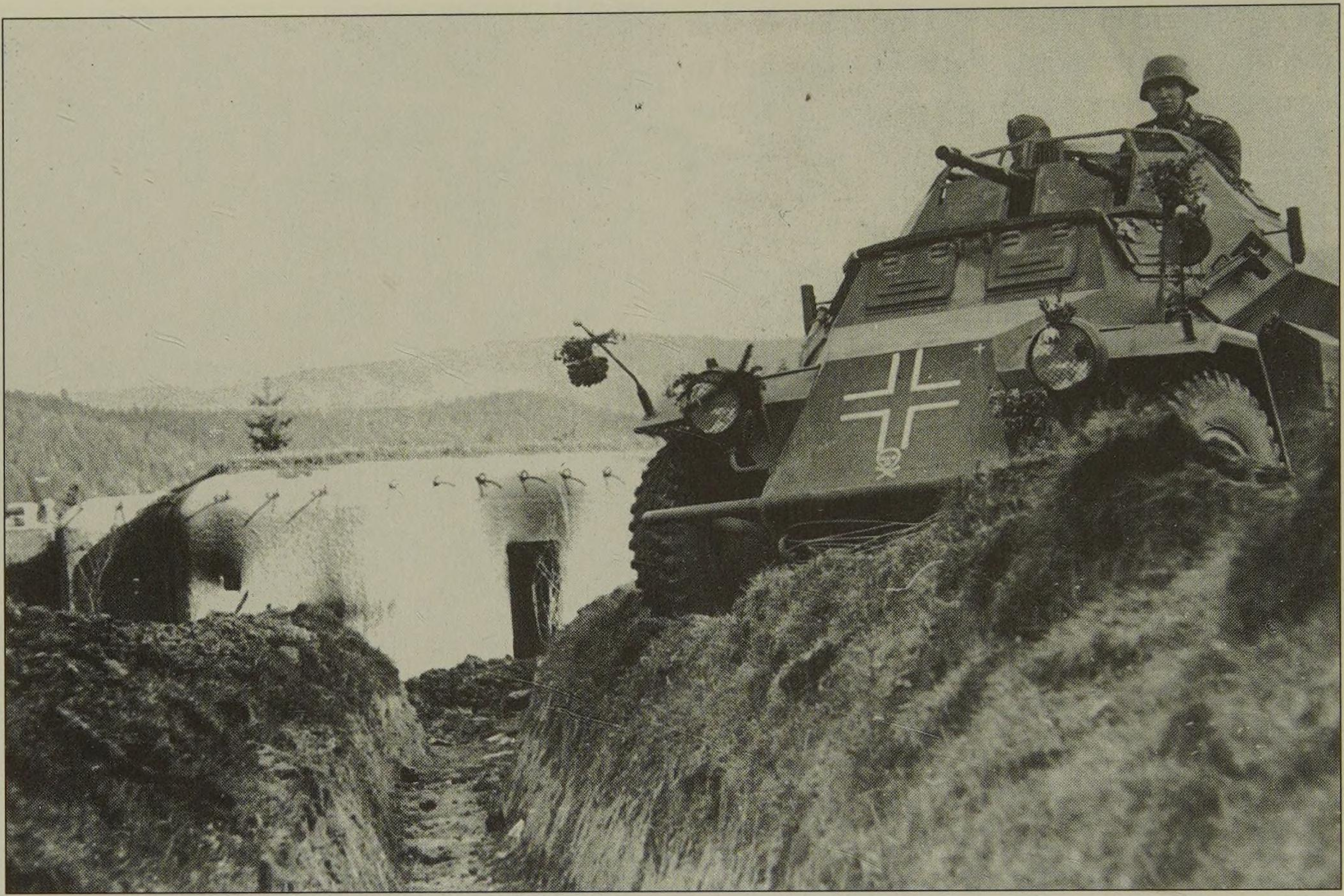
SS-HAUPTSTURMFÜHRER M. WITTMANN

Any book about tank aces would be incomplete without mention of Germany's greatest tank ace of the Second World War, so although I covered one of his most memorable battles – against 7 Armd Div in Villers Bocage – in my last book on tank actions,[4] I believe he also deserves mention in this one as well, in order that more explanation can be given about the man and his military career. Michael Wittmann was born on 22 April 1914, on a farm near Voegtal in the Oberfalz region of southern Germany, and he grew up there with his brother and two sisters, enjoying a simple farming life yet always being intensely interested in machinery and all things mechanical. His quiet existence came to an end in 1934, when at the age of twenty, he joined the Reichsarbeitdienst (State Labour Service)[5] for six months (February to August). He enjoyed the hard physical labour – which he was used to from his years on the farm – and did extremely well. Having finished his tour of duty, instead of returning to his family, Michael decided to join the Army and did so on 30 October 1934, being posted to 10 Company, Infantry Regiment 19 at Freising. During his basic training he had his first glimpse of a tank – a little Panzer I Ausf A – and it was enough to stir Wittmann's mechanical interest, even though at that stage he preferred to stay an infantryman.



SS-Haupsturmführer Michael Wittmann, Germany's greatest tank ace, wearing his Knight's Cross. (Tank Museum)

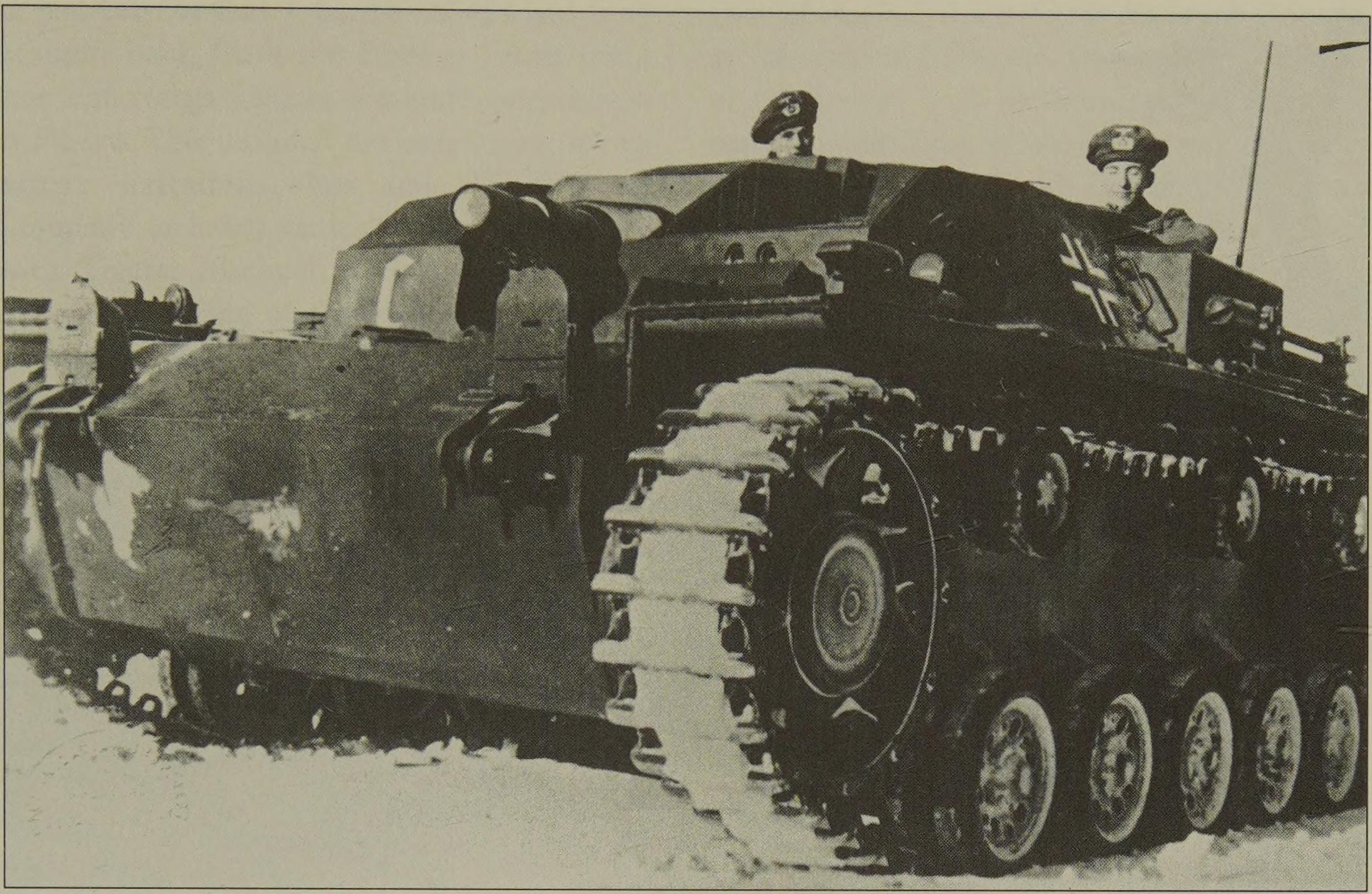
He continued to serve in the Wehrmacht until the end of September 1936, when, having reached the rank of Gefreiter (lance corporal), he decided to apply to become a member of the Allgemeine SS, which was the General SS, the overall body of the SS, which was composed of full-time, part-time, active, inactive and honorary members. Having attended the SS school at Lichterfelde in Berlin in April 1937, Michael Wittmann was incorporated into the



The first type of AFV on which Wittmann served was an SdKfz 222, three-man Panzerspähwagen (light armoured car), armed with a 2-cm cannon and a 7.92-mm MG 34. This 222 was photographed before the war in October 1938. (Tank Museum)

military branch of the SS, the Waffen-SS, joining the ranks of the élite Leibstandarte SS Adolf Hitler (LSSAH), the Führer's personal bodyguard. It was at this point that Wittmann, now an SS-Sturmmann (corporal), began training on his first armoured fighting vehicle – the tiny four-wheeled armoured car SdKfz 222 leichter Panzerspähwagen, which weighed 4.8 tons, had a crew of three, and was armed with a 2-cm main gun plus a coaxially mounted machine-gun. Being only 16 ft long and 6 ft 8 in high, it was ideal for reconnaissance work. Wittmann became first a driver, then a crew commander.

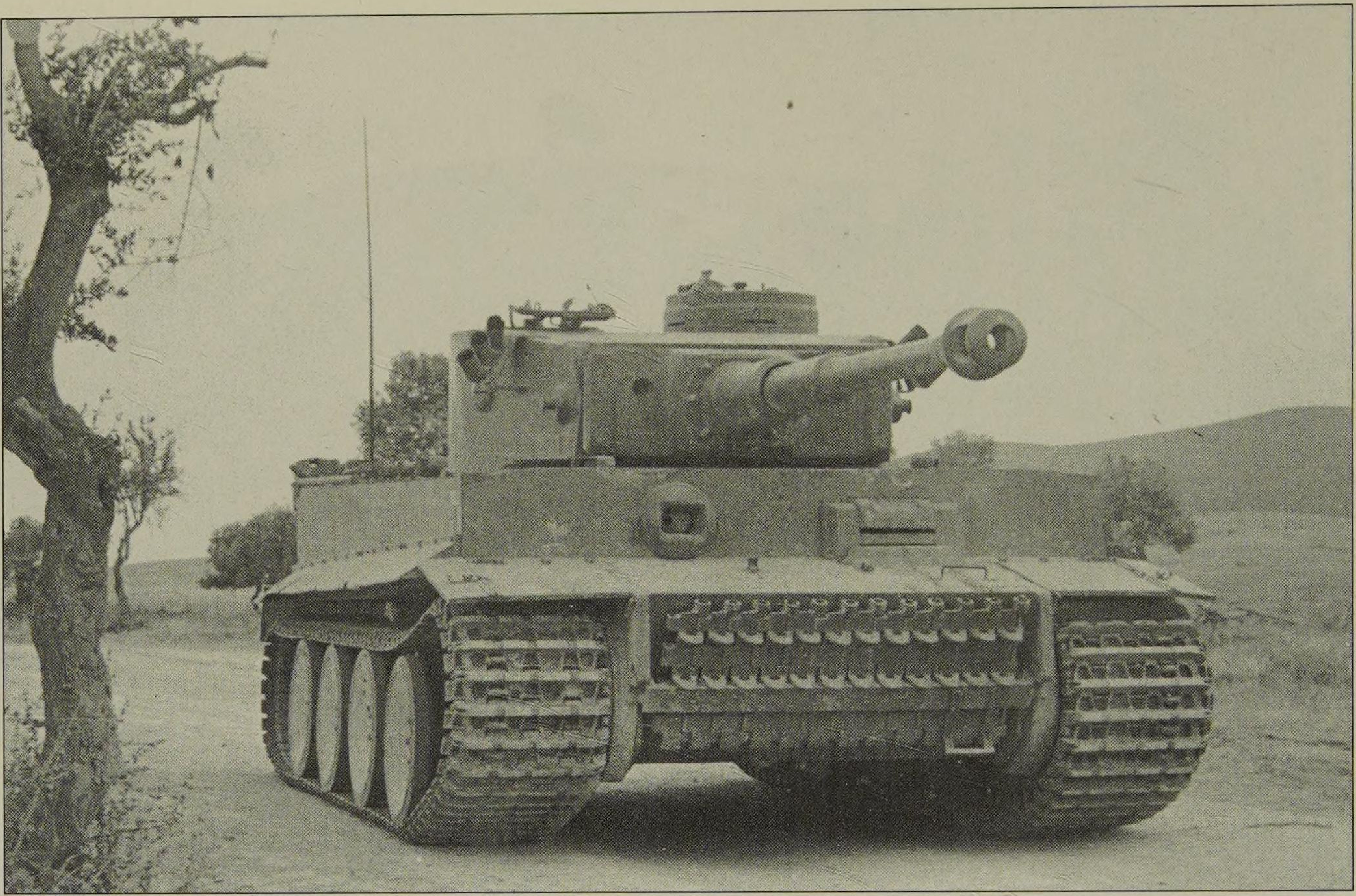
By September 1939 Wittmann was an SS-Unterscharführer (sergeant) in a Panzerspäh-Zug (armoured car platoon), taking part in the invasion of Poland, followed in May 1940 by the invasion of France. He performed well in both campaigns and, after the French collapse, his regiment was sent to the Metz area, where the LSSAH was expanded to include heavier weapons such as the new assault gun, the StuG III, which was just coming into service. This assault gun was based upon the PzKpfw III medium tank chassis and mounted a low velocity 7.5-cm gun. Wittmann, who had clearly shown his aptitude for AFVs, soon found himself commanding a StuG III Ausf A, first on training exercises, then in combat when they were sent to Greece (Operation 'Marita') in the spring of 1941. There was plenty of action and the LSSAH took over 12,000 prisoners in the first few days, while for Wittmann and his crew it was, to quote



Wittmann's next AFV was a StuG III Ausf A like this one, armed with a 7.5-cm StuK37 gun, which was mounted offset to the right of the low, streamlined superstructure. (Tank Museum)

from Gary L. Simpson's biography of Michael Wittmann: '. . . an unbelievable three weeks of hardships which included bitterly cold weather, bad roads, constant shelling, endless hold-ups, enemy snipers, mines and vehicle breakdowns'. And there was worse to come.

Michael Wittmann's next major operation was the massive German assault on its one-time 'ally', the USSR, when the LSSAH was part of XIV Panzer Corps in their south-easterly advance into the Ukraine in June 1941. Wittmann soon had the opportunity to show his skill, being awarded the Iron Cross 2nd Class on 12 July 1941, then the Iron Cross 1st Class on 8 September. On the first of these occasions, his StuG came under attack from no fewer than eight Soviet tanks, but by clever use of ground and superior tactical ability, Wittmann succeeded in knocking out six of the enemy AFVs, thus stopping the Russian attack. This action brought him to the attention of the divisional commander, SS-Obergruppenführer Josef 'Sepp' Dietrich, who immediately ordered the award of Wittmann's first Iron Cross. In early August, while they were operating in the Uman area, Wittmann's StuG was hit on the turret by an enemy shell. Wittmann was standing in his commander's hatch and was hit in the face by a shower of shell fragments. Luckily the wounds were only superficial, the armour around his cupola saving him from more serious injury. He was awarded the badge for wounded soldiers (in black) – he would later go on to receive the award in silver.



In the Tiger E, Wittmann became a master of the battlefield, knocking out scores of Allied tanks and almost singlehandedly holding up the entire British 7 Armd Div at Villers Bocage. (Tank Museum)

Wittmann was wounded again shortly after being awarded the Iron Cross 1st Class, this time, although the circumstances were similar, his wounds were more serious and included an injury to his upper right thigh. However, this did not keep him out of action for very long, so it was understandable that the gallant young StuG commander would soon be recommended for officer school. From June to September 1942 he attended the SS Junkerschule at Bad Tolz, and was then a member of the SS Panzer Ersatz Abteilung (Tank Training Battalion), where he received detailed training on the latest German panzer – the heavy PzKpfw VI Tiger, which was to remain his primary weapon system for the rest of his days on the battlefield. This training included a visit to the Henschel factory in Kassel where the tanks were built. On 12 December 1942 Wittmann completed his training and left Bad Tolz as an SS-Untersturmführer (2nd lieutenant).

Tiger I was a very different AFV to the StuG III which Wittmann had taken into battle previously. It weighed a massive 57 tons, had armour up to 100 mm thick, a crew of five and, above all, mounted a deadly 8.8-cm KwK36L/56 main gun and two MG 34s. The gun had immense power and could easily penetrate the armour of any Allied tank at considerable ranges. For example: using the APCBC (AP 38) round it could penetrate 119 mm of armour at 1,000 m and 90 mm at a staggering 2,500 m. This was the perfect 'tool' for any tank ace and Michael Wittmann soon proved his prowess with the new panzer. While he had been at Bad Tolz, the LSSAH had been brought back from the Eastern Front for a thorough reorganization, rest and reinforcement in France. This included not only giving it two panzer battalions, but also 13 Schwere Company (a heavy tank command) equipped with Tigers. Michael Wittmann was given command of one of these Tigers when they returned to the Eastern Front in the Kharkov area, under Hauptsturmführer (captain) Heinz Kling, a very resourceful commander, well respected by his men. They were soon in action and it wasn't long before Wittmann used his 8.8-cm gun 'in anger'. Simpson described it thus:

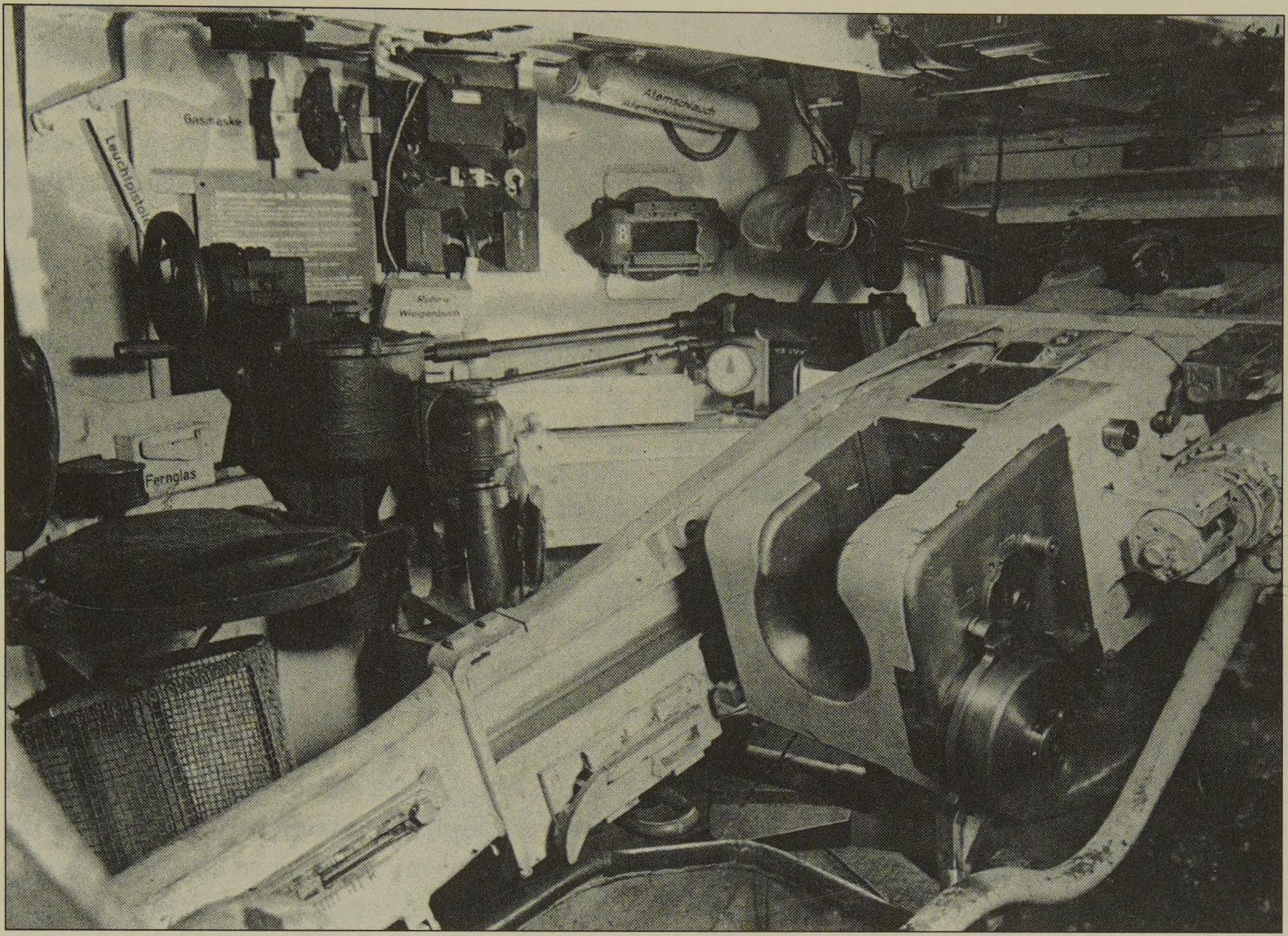
'As Wittmann closed his commander's hatch, the street in front of his vehicle suddenly was ablaze with fire from every possible direction. The first rounds of the anti-tank gun whistled over the top of his Tiger I turret with a great rush of air. Wittmann ordered his driver to halt, Woll had just aimed the 8.8 cm main gun and all he needed was to make a last second adjustment to his sight picture. Wittmann gave his first fire command, and with a powerful crack, and the rocking back of the vehicle, the main gun round flew out and into the direction of the enemy Pak weapon. Two brief seconds after the firing, there was a bright flash of red and orange as the sound of the explosion echoed throughout the village. The HE round had found its mark as the anti-tank gun had been totally smashed along with its crew.'

Having destroyed this first enemy anti-tank gun, Wittmann went on to knock out another, then engaged a long column of enemy vehicles, knocking out many of them. However, it would be in the coming battle of Kursk that the Tiger would really come into its own; by 5 July 1943 Wittmann and his crew had accounted for thirty Russian tanks and twenty-eight anti-tank guns in the area of Bjelorod. Two days later he knocked out seven more T-34s and nineteen guns of the Red Army 129th Anti-tank Brigade at Tetervino and Oboyan. Despite the excellence of the Soviet T-34 medium tank, it was no match for the Tiger, whose 8.8-cm gun could rip the turret off a T-34 with just one round and hurl it several yards away. Indeed, the German soldiers quickly coined the phrase 'The T-34 always raises its hat whenever it meets a Tiger'! Wittmann was now a platoon commander, and on 12 July his platoon drove off an attack by over sixty Russian tanks. Later it singlehandedly smashed the 181st Red Army Tank Brigade as a fighting unit, its deadly 8.8-cm guns being able to take on and destroy the enemy tanks at ranges of between 1,200 and 1,800 m, at which distance the enemy guns had no chance of penetrating the thick armour of the Tigers. However, the battle did not always take place at such long ranges, and Wittmann lost a number of his platoon and was hit countless times by enemy fire. Eventually, despite inflicting massive casualties, the German panzers had to accept defeat and withdraw. The SS Corps was taken out of the line and, in early August, was ordered to Italy, where it spent three months on 'anti-partisan' operations as part of Rommel's Army Group B. However, it would not stay there for long, being recalled to the Eastern Front in early November 1943, to assist in endeavouring to stop the Russian 'steamroller' which had now begun to roll westwards.

On the morning of 21 November, near Brusilov, north-east of Fastov, Wittmann and his crew destroyed six T-34s and five anti-tank guns, then in the afternoon of the same day knocked out ten more enemy tanks and seven anti-tank guns, making a staggering total of twenty-eight major equipments in one day. A few days later, on 4 December, the Tiger company was advancing towards enemy positions near Kortuky, engaging enemy artillery with HE in order to make a gap through which follow-up tanks could advance. It was during this engagement that Wittmann met a massive Russian self-propelled gun, which he found could not be penetrated head-on. After firing a couple of rounds without any success, he moved around to a flank and carefully stalked the enemy AFV, finally engaging it and knocking it out from a range of under 100 m. The battle continued unceasingly, and on 6 December Wittmann and his crew celebrated their sixtieth enemy tank kill. By 14 January their tally was up to eighty-eight, as was announced on the radio, together with the notification that he had been awarded the Knight's Cross. Wittmann was very proud of his achievements but, like any sensible tank commander, fully realized how much he owed to his superlative tank crew, especially his tank gunner, Bobby Woll, saying that he would only accept the award if his gunner was also honoured in the same manner. This was agreed after careful consideration and, as if to celebrate, during the fighting in the Pripet marshes, Wittmann and his crew destroyed nineteen more Russian tanks and three super-heavy anti-tank guns. By mid-February the tally had risen to 119 enemy tanks, when Wittmann was told that he would take command of his own panzer company (2 Company of SS Panzer Abteilung 101) in the LSSAH, which was to be moved to the Western Front, to regroup, retrain and reorganize in Belgium. He was also awarded the Oakleaves to his Knight's Cross and promoted to Obersturmführer (senior lieutenant).

Michael Wittmann took the opportunity to take a short leave, during which he married Hildegard Burmester on 1 March 1944. Also during this leave, after their honeymoon, Wittmann was invited to visit the Henschel Tiger works in Kassel, where he personally thanked the workers for building such an outstanding tank. Shortly afterwards, he and Woll were also given an audience with Hitler at the Führerhauptquartier, Wittmann being formally decorated with the Oakleaves. Panzer Abteilung 101 then had a difficult road march towards the invasion front and, while in the vicinity of Versailles, on 8 June, 2 Company was attacked by Allied fighter-bombers. There were no casualties, but some minor damage to vehicles. Some of the tank crews stayed with their vehicles, but others, including the gunners, accompanied Wittmann's party. Wittmann had left his gunner with the damaged vehicles, so he took Bobby Woll (now a tank commander) back on board his Tiger as his gunner. They arrived at the front on the night of 12 June, and went into a hide area in the woods near Villers Bocage. The enemy, in the shape of the British 7 Armd Div, was thought to be advancing along the left boundary of the Panzer Lehr Division, which had lost touch with 352 Inf Div on its left. Wittmann took his four Tigers, accompanied by a PzKpfw IV, and moved towards Villers Bocage. As his small force approached the village he saw a column of enemy AFVs leaving the built-up area and moving slowly up the road towards the high ground. Then they stopped and the crews dismounted for a 'brew'. Villers Bocage had been full of cheering villagers and no enemy had been seen, so the column, which comprised the divisional advance guard, was totally oblivious to the danger which was so close at hand.

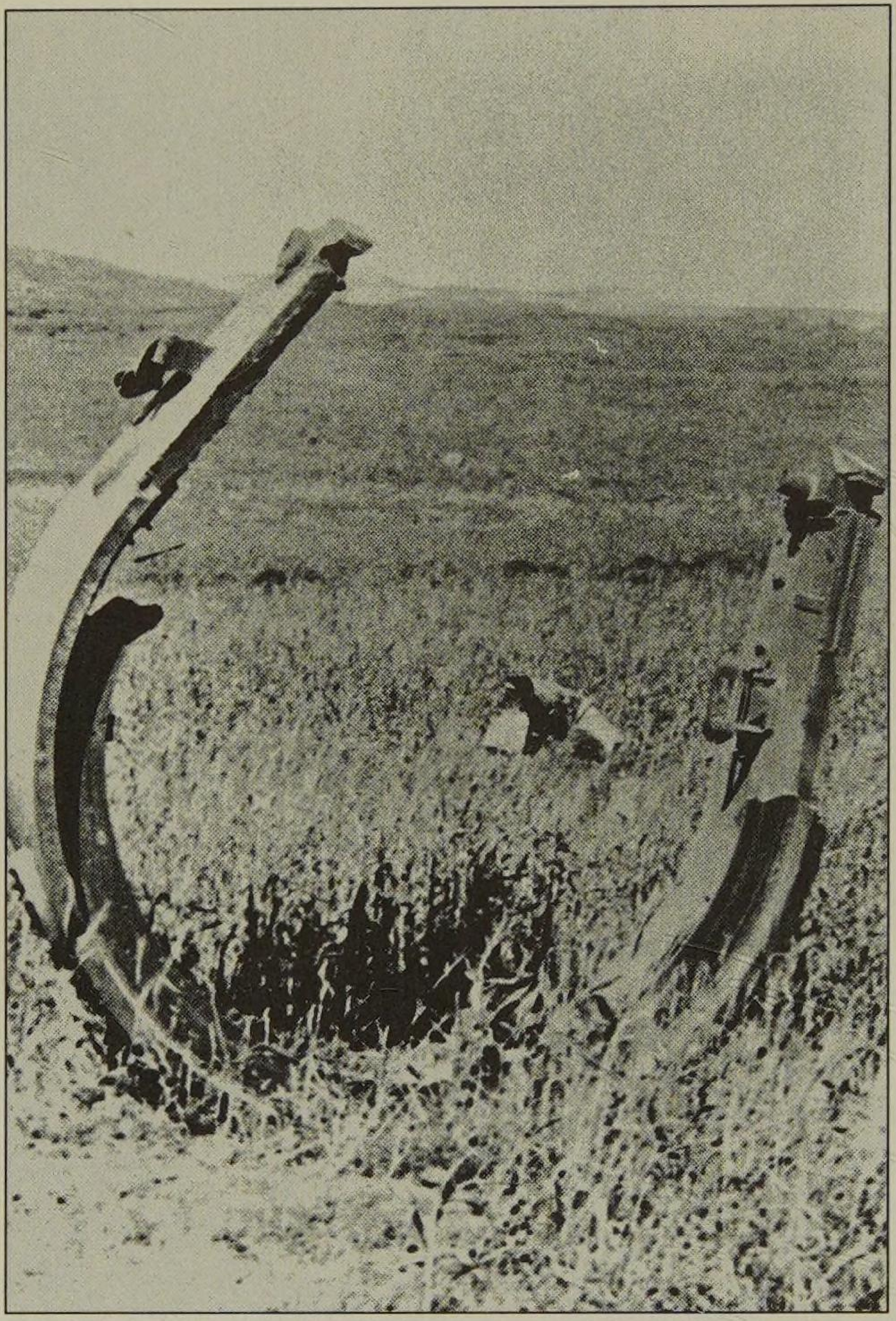
Having watched the leading AFVs (A Sqn 4th County of London Yeomanry) halt and their crews dismount, Wittmann decided to see what was happening in the village. So, leaving the rest of his small force to cover the leading enemy, he cut around behind them and entered Villers from the north-east. He immediately saw the four Cromwells of RHQ 4 CLY and knocked out three of them. Then he continued westwards, where he met the leading tanks of the next squadron (B Sqn), engaged them, then withdrew eastwards to rejoin his other tanks. Having replenished his ammunition he began to engage the enemy



Internal view of the Tiger E turret, showing the breech of the 8.8-cm KwK L/36 gun. (Tank Museum)

tanks, shooting up the entire squadron and the accompanying infantry half-tracks. After replenishing for a second time, Wittmann decided to go back into the village where he ran into an ambush and was knocked out, as were all the rest of his small group. However, Wittmann escaped on foot with his crew and managed to evade capture. In the battle, Wittmann had destroyed twenty-five British tanks and numerous other vehicles, for which he was awarded the Swords to his Knight's Cross (the only individual tank commander to be so decorated) and promoted to SS-Hauptsturmführer. A reporter from the Waffen-SS newspaper *Das Schwarze Korps*, who was sent to interview Wittmann about this time, described meeting him as follows:

'I saw him for the first time in a park at Baron in Normandy. He ran through the rain with hunched shoulders and hands in his pockets because it was cool. . . . Two hours' sleep on a field bed somewhere were not sufficient to remove the shadows of exhaustion and of hard combat from his face. He stood before us, of middle height, his hair pale blond, a face in which modesty, calm and self-assurance could be read. Just hours before he had destroyed 21 British tanks and the most unusual thing to observe about him was that curious after-effect of great exertion, which had left on him not only a physical effect, but also on his heart and soul. He knows completely what he has accomplished, he knows the value of his success. Yet anyone



The massive horseshoe-shaped armour plate of the Tiger turret is still visible even though the turret has been blown to pieces. Wittmann's Tiger was almost completely destroyed with its crew, by the 1st Northants Yeomanry on 8 August 1944. (Tank Museum)

who talks to him as if to a "hero" will find that Michael Wittmann regards him quietly . . . with some confusion. He doesn't like dramatics, the "big words" and the fuss people make of him. He doesn't know how to respond to such people and he walks away.'

Wittmann's next major action would be his last. His total 'kills' now stood at 138 tanks and 132 anti-tank guns, plus countless other soft-skinned vehicles, half-tracks and so on. He was offered a staff posting but refused, although he did manage to get Bobby Woll to go on medical leave. On 8 August 1944 Wittmann, with a platoon of three Tigers, was engaged in a fierce firefight with tanks of the 1st Northants Yeomanry in the area of St Aignan-de-Cramesnil in the Falaise Gap. The Tigers were up against Shermans, which were easily outclassed, but they included Sherman Fireflies, which mounted the British 17-pdr gun, the only gun the Allies had at that time which could penetrate the thick armour of the Tiger, although even then only at ranges of below 800 m. Displaying markmanship which both Wittmann and Woll would have applauded, the Firefly gunner knocked out all three Tigers, one of which was Wittmann's, although of course there was no one left on the German side to confirm definitely that he had been killed. Col Tom Boardman, who was at the time 2IC of A Sqn, 1st Northants Yeomanry, recalled the incident to me thus:

'When the Tigers were about 1,000 yards from us and broadside on to us, I told 3 Troop (and my gunner) to fire. The Firefly did the damage, but our 75s helped and must have taken the track off one which started to circle out of control. They shot back at us, put the Firefly out temporarily as its commander was hit on the head. However, at the end of a very few minutes there were three killed Tigers and as nobody was seen to bale out presumably the crews were killed. Despite claims by the RAF and the Canadians, I can assure you – and anyone else – that those three Tigers, and we know now, Michael Wittmann, were the victims of No 3 Troop, A Sqn, 1st Northamptonshire Yeomanry.'

Even when Wittmann did not return to his unit and a search was made, it was impossible to find his body. The mystery remained until 1983, when the German War Commission, assisted by British and French volunteers, found fragments of bone, shreds of uniform and most importantly, an identity disc. Although it was impossible to separate individuals, it was clear that this was the last resting place of Michael Wittmann and his crew. The remains were buried in a communal grave in the German War Cemetery at La Cambe. Sepp Dietrich said of Wittmann, 'He was a fighter in every way, he lived and breathed action', while another of his commanders, 'Panzer' Meyer, wrote, 'Michael Wittmann died as he had lived – brave, dashing and a living example to his Grenadiers'.

NOTES

1. There was to have been an even higher award, namely the Golden Swords, Oakleaves and Diamonds, which was instituted on 29 December 1944 and was intended to be awarded to just twelve of the 'Bravest of the Brave'. In fact only one was ever awarded and that went to Stuka pilot Oberst Hans-Ulrich Rudel.
2. Gen George S. Patton was a member of the US Olympics Team at the 1912 games held in Stockholm, and was placed fifth out of forty-seven competitors in the Modern Pentathlon.
3. The Freikorps was a paramilitary organization formed in late 1918/early 1919, by military officers who recruited demobilized soldiers, sailors, students and the unemployed. The unit played an equivocal and often violent role in the early years of the Weimar Republic.
4. See *Tank Action: From the Great War to the Gulf*, Alan Sutton Publishing (now Sutton Publishing), 1995.
5. The RAD was established to overcome unemployment by placing the jobless in labour battalions. From 26 June 1935, all Germans between the ages of nineteen and twenty-five were required by law to work in labour camps. Hitler regarded the RAD as a step towards rearmament. Men spent six months in the RAD, mainly on farmwork.

ISRAELI TANK HEROES

Col David Eshel is a well-known and respected international writer, author of such books as *Chariots of the Desert*, the definitive history of the Israeli Armoured Corps, which was published by Brassey's in 1989. He was a founder member of the Israeli Armoured Corps and played an important part in its development becoming its Chief of Signals and serving for a total of twenty-six action-packed years. It is fitting, therefore, that I hand over to him to tell the stories of three of the Israeli Defence Forces (IDF) armoured heroes.

MAJ GEN M. BRIL,
THE HERO OF ABU AGHEILA

The village of Abu Agheila is situated in the middle of the Sinai peninsula and was one of the most important strategic communication centres in that region in 1956. Three major routes merge here; one goes east towards the Israeli border at Nitzana, another winds northwards to El Arish on the Mediterranean coast, and a third leads west to Ismailiya on the Suez Canal. No wonder then that Abu Agheila became a focal point of the Egyptian defence of Sinai, placed in the hands of the commander of the 6th Infantry Brigade under Brig Sami Yassa Boulos. He located his defence in well laid out positions at Um Katef and Um Sheikhan, to the east, blocking the approach from Israel, as well as on Ruefa Dam, just east of the junction. The dam, which was constructed by the British after the First World War, had been turned into a strong defensive compound, situated in high ground created by the earth wall of the dam and Wadi El Arish.

Shortly before dawn on 30 October 1956, the Israeli 7 Armd Bde, led by Col Uri Ben-Ari, set out from its assembly area near Nitzana and moved along the Qusseima road into Sinai. The village, which was defended by a strong Egyptian force, had pinned down an Israeli infantry brigade made up of elderly reservists, who had earlier tried to capture it unsuccessfully. Ben-Ari, leading a company of tanks from the 82nd Tank Battalion (82 Tk Bn), was passing the reservists, who were cowering under the impact of enemy fire. Capt Shmuel Gorodish, in the lead tank topped a nearby ridge, sending a few rounds of gunfire into the Egyptian positions, causing the defenders to flee hastily. Then the Sherman tanks[1] smashed into the village square, rounding up scores of agitated prisoners, most of whom had never seen a tank before.

Ben-Ari hastily made his plan, then assembled his battalion commanders for a short orders group in a small group of palm trees. Sending one task force to try to make contact with the Um Sheikhan complex to the north, he kept one battalion, the 82nd, at Qusseima, but ordered his third, a light tank battalion equipped with AMX-13 tanks,[2] to rush westwards to capture Bir Hassaneh. In the resulting operations, the northern task force came under heavy fire from Um Sheikhan and got bogged down, but the brigade reconnaissance squadron discovered that the entrance to the strategic Daika Pass was unguarded and the brigadier, realizing his chance to outflank the Abu Agheila complex, decided to send the 82nd through the pass to reach the far side on the Abu Agheila–

Ismailiya road, during the coming night. The 82nd was Israel's senior tank battalion, commanded by Lt Col 'Bren' Adan. He in turn ordered Maj Moshe Bril's A Company to lead the battalion through the pass. Bril, standing upright in his Sherman tank, set out and travelled through the pass in complete darkness, followed by a scout jeep. The way led through a narrow defile with towering rocks on both sides. The sand track was full of anti-tank obstacles, which, luckily for Bril's tankers, were unmanned – the Egyptian sappers having fled as soon as the tanks came into view. But some mines did remain intact and had to be cleared. Maj Bril then discovered that the Egyptians had actually left a 5 m stretch unmined at one side, presumably for their own traffic, over which he now guided his tanks. However, it took the best part of the night to travel through the defile. At dawn contact was made with a lone troop from the recce squadron, which was hugging the high ground near the exit, happy that the tanks had at last arrived at their exposed position.

Bril did not pause for long, and soon his leading tanks were emerging from the pass, firing at several Egyptian trucks which they set on fire. A troop of Staghound armoured cars[3] which had hastily withdrawn from its position near the exit was also intercepted. Meanwhile Col Adan arrived and drove his command half-track onto a hillock in order to scrutinize the area towards Abu Agheila, which could clearly be seen in the growing daylight. To the east, the Ruefa Dam stronghold was also visible. Having conferred with the brigadier, who had also come forward, it was decided to attack the Abu Agheila junction immediately, then to proceed as matters developed. Adan decided to hit the junction with a combined tank and armoured infantry assault and, at 0530 hrs, with Maj Bril leading, the task force stormed along the main road towards the Egyptian camp. As they came into range, the Israeli tanks and infantry came under heavy enemy fire. Hardest hit were the half-tracks of the infantry company, who dismounted and started forward on foot, making use of the cover of a road ditch to get forward. The colonel, seeing some dust coming from the direction of the El Arish road, radioed Bril to send a platoon of tanks to block that road. Lt Thomas was despatched but, as he advanced, he encountered a steep impassable wadi. Using his initiative, the young officer ordered his platoon into fire positions and started pounding the Egyptians inside their camp. Soon after that, Bril and the rest of his company stormed into the camp perimeter and after a short firefight captured it. While the infantry was mopping up and taking over, Maj Bril lost no time in moving swiftly to take up hull-down positions overlooking the El Arish

Maj Gen Moshe Bril, while commanding the Israeli Armoured Corps. (IDF Spokesman, via Col David Eshel)

road, from where he could readily engage the approaching Egyptian tanks which were now coming into view, completely unaware of Bril's waiting Shermans.

By now the Egyptians were nearing a crisis. Brig Boulos had been wounded attempting to organize a counter-attack in the direction of Qusseima and had been evacuated. Col Saad Mutawalli, who had arrived to replace him, was facing a critical situation, as Adan's task force was capturing the junction. With the tanks from El Arish unable to break through Bril's road block, there was little that Egyptian colonel could do to restore the situation, as he had no tanks in his brigade.

Col Adan conferred with his brigadier and decided to mount his attack on the Ruefa Dam position. But as he was about to give his orders, the fortunes of war swung against him and his force was hit by a two-pronged counter-attack. It was the work of the Egyptian 3rd Infantry Division at El Arish, that had now interfered with the Israeli plan. Its commander, realizing the danger to his southern flank, had ordered a reinforced battalion to attack along the El Arish–Abu Agheila road, while another force drove against the Israelis from Um Katef. The counter-attack struck Maj Bril's tanks first. His company was hit by high velocity tank guns mounted in makeshift turrets on the Egyptian Sherman tanks. The fire was very accurate but fortunately Bril had chosen his hull-down positions well and took no losses. While Bril was engaging the Egyptian tanks, Col Adan saw the other prong of the attack coming in from the east. He called for air support; several Mustangs appeared and swooped down on the Egyptian column, destroying several vehicles and halted the attack before it could make contact with the Israelis at the camp.

But problems began to multiply. Col Ben-Ari received a message that reported pilots having seen a large Egyptian armoured force advancing along the Ismailiya desert highway driving east. The brigadier now realized the acute danger his force was in. Cut off from his rear, all lines of communications blocked at Um Sheikhan and Um Katef, the Daika Pass impassable to wheeled vehicles, he would not only run out of supplies, but would also have to fight a major battle with an enemy armoured force, the size of which he did not know. Moreover, with one of his task forces already at Bir Hassane, his brigade was widely stretched and virtually out of radio range. Ben-Ari now despatched his second task force towards Jebel Libni, ordering the commander to establish contact with the Bir Hassane task force as he came within radio range and then set up a double ambush to await the enemy force. Ben-Ari's orders were short and precise. Adan was told to hold his attack on the dam, consolidate his position and wait until the approaching enemy armour could be stopped. Then rushing west with his small command group, the brigadier drove towards Jebel Libni to control the battle which he knew was only hours away. The plan was to block the Egyptian armour at Jebel Libni and then strike at its flank with the Bir Hassane task force, or, should the Egyptian commander decide to wheel south, block him at Bir Hassane and strike him with the Jebel Libni force. It was a brilliant plan, but proved to be one which was never put into practice, as the Egyptian armoured brigade was almost completely destroyed by Israeli jets while still far away to the west.

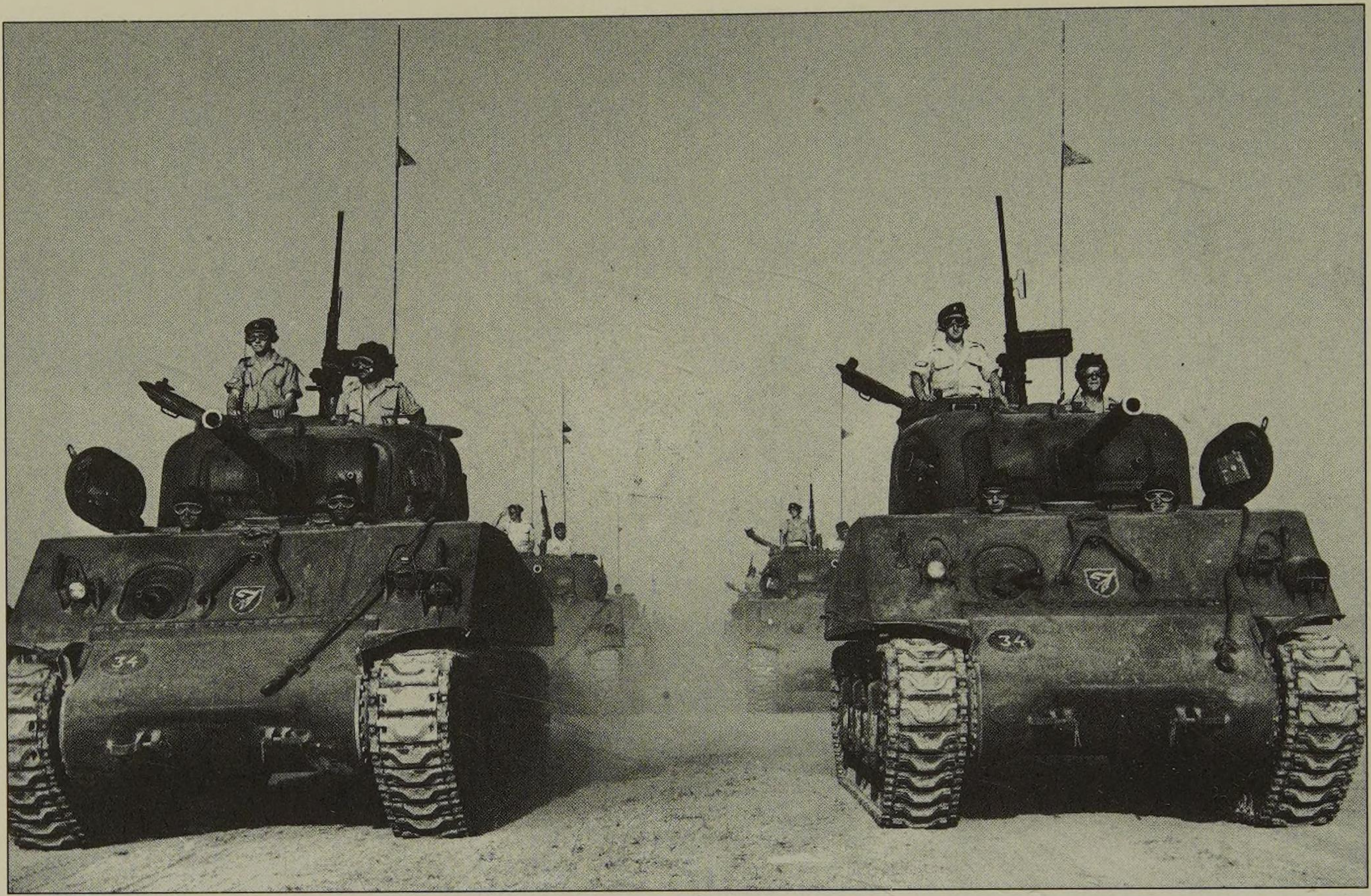
The drama at Abu Agheila was now about to unfold and A Company under Maj Moshe Bril was to earn its most coveted distinction in the battle of Ruefa Dam. It was already dark and the task force commander rushed to a nearby ridge to have a last look before issuing his battle orders to a hastily assembled orders group. The Egyptian position consisted of more than twenty dug-in anti-tank guns and about two companies of infantry in well-entrenched positions, including concrete bunkers. It would be a tough fight – even

Col Uri Ben-Ari, commander of 7 Armd Bde, controlling the battle in Sinai, 30 October 1956. (Eshel Dramit Ltd)

more so during total darkness! Maj Bril would lead the attack with his tank company, but he had virtually no time to glimpse his objective, nor to issue any orders to his crews. All he could do as he mounted his tank was to shout to his tank commanders to follow him and to do as he did. It was not much, but it had to suffice as time was of the essence.

Adan's plan was simple and thus had a fighting chance. Maj Bril's tank company would drive into the Egyptian outer defences and secure the high ground overlooking the camp, while Maj Sasson's armoured infantry company would follow along the road in their half-tracks and then dismount to storm the position. A covering force of two Sherman tank platoons, one from Bril's company and one from another company which had recently joined Adan's battalion through the Daika Pass, would take up fire positions on a ridge overlooking the dam. To block the El Arish road, the rest of the new company would establish a strong hull-down position on the ridge which had been occupied by Maj Bril.

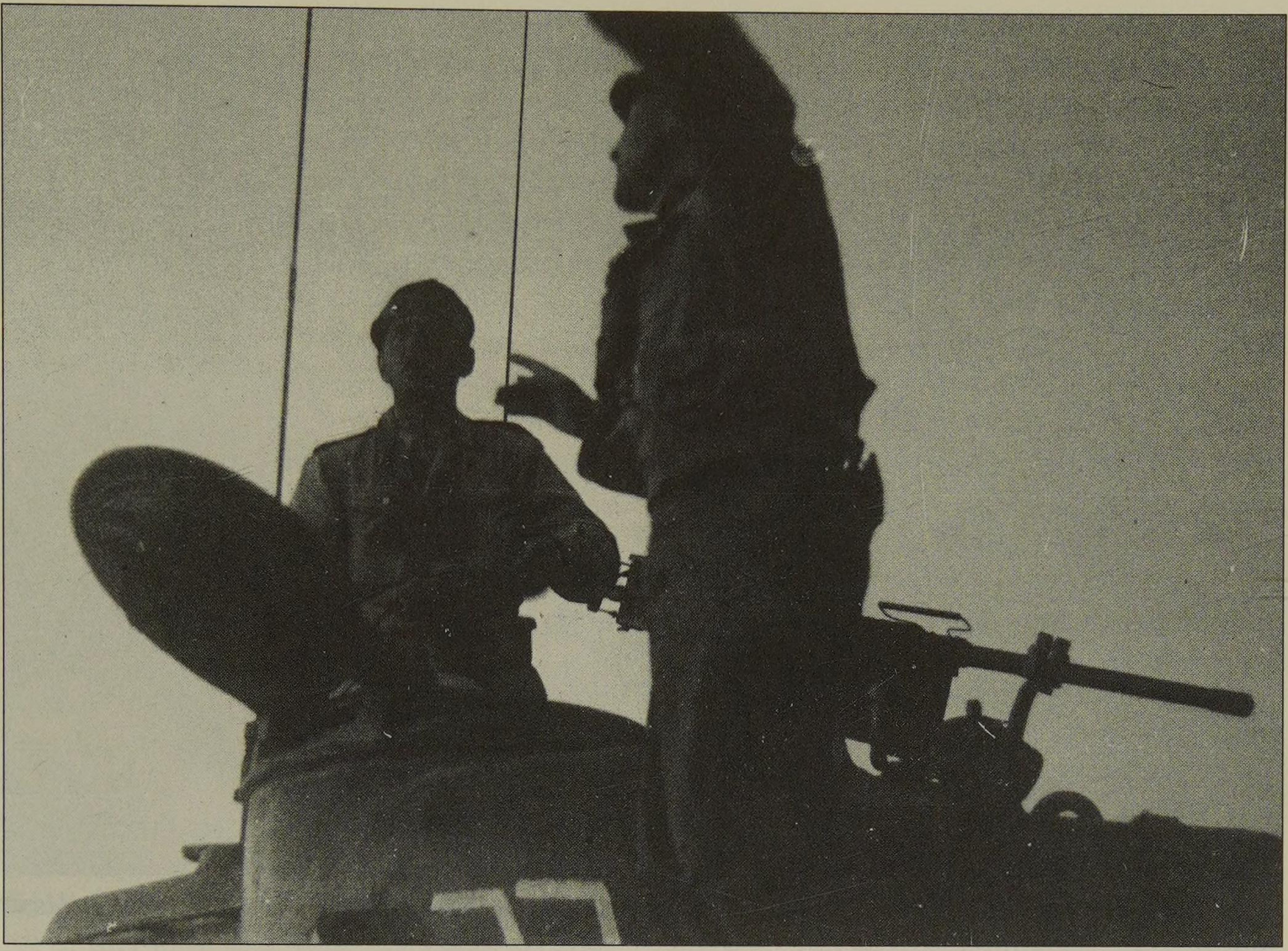
By now darkness was falling and Maj Bril's A Company began to drive forward in column, with Moshe Bril in the lead tank. As they passed the fire base, the Egyptians opened fire from their anti-tank gun positions which were well camouflaged and in a dominant position overlooking the approach route which Bril had no choice but to take. Their fire was devastatingly accurate. One by one the Israeli tanks were hit, either by the 17-pdr guns of the Egyptian Archers[4] or by their 6-pdr anti-tank guns, both of which were dug in and very difficult for the Israelis to hit. Fortunately, on most of the tanks that were hit



A Coy 82 Tank Bn, 7 Armd Bde, on parade with its M4A3 Sherman medium tanks, which were the mainstay of the Israeli Armoured Corps in the 1950s. (Eshel Dramit Ltd)

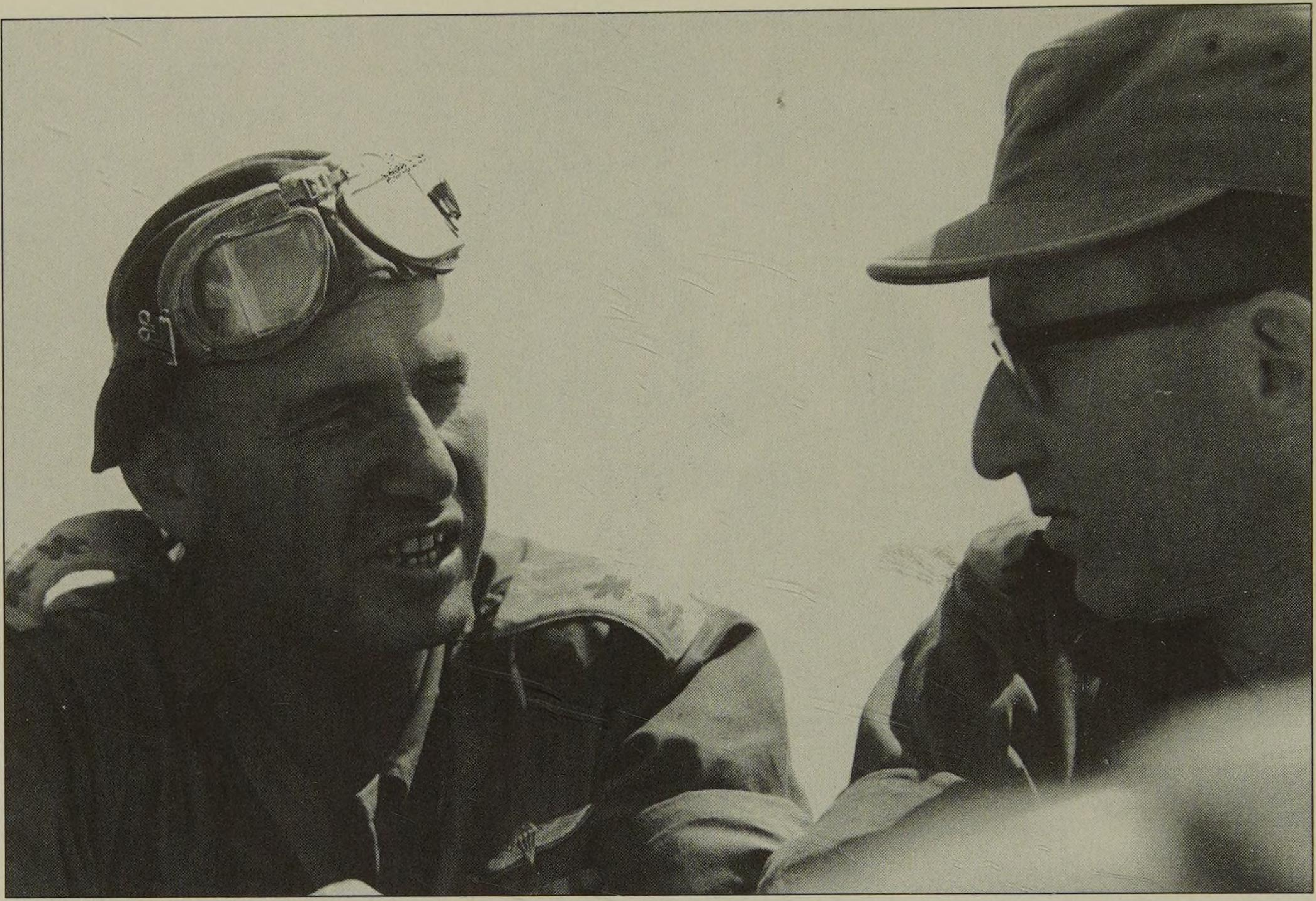
the crews were either unhurt or only slightly wounded, so they were able to dismount, set up their machine-guns on ground mountings and continue to fight. However, there were some fatalities; one of the first was Lt Thomas, who was killed outright when his Sherman received a direct hit. With his commander dead, the gunner, who was unhurt, continued firing his main gun and coaxial machine-gun, trying his best to ignore the slumped body of his officer which lay lifeless on the turret floor. Maj Bril's tank was now at the outer perimeter fence, with concentrated enemy fire all around him. Bril could see the Egyptian soldiers racing round in a frenzy as he fired at their fleeting figures in the dark. As he went forwards, he tried to make out the locations of the enemy guns from their muzzle flashes and to direct his gunner onto them. His tank was hit repeatedly, but fortunately did not catch fire and the engine kept on running perfectly. So far so good, although he could only see one other tank from his company still advancing with him, all guns blazing.

Meanwhile, Sasson's infantry company was also having its problems. As they neared the camp gates some of the half-tracks crashed through the wire, but the company commander's driver panicked and had to be forcibly removed by a reservist radio mechanic, who took over the wheel and drove for the rest of the operation. Further on, Maj Bril could be seen crashing his Sherman through an enemy gun position, lobbing grenades through the open tank hatches as he drove along. Inside the enemy camp, several



Maj Moshe Bril in the commander's hatch of his Sherman, before the battle for Ruefa Dam, Abu Agheila, 31 October 1956. (Eshel Dramit Ltd)

vehicles and an ammunition dump were now ablaze from his direct fire and from the artillery shells which were landing all around. The entire scene became even more chaotic as the Israeli infantry closed with the Egyptian defenders in hand-to-hand combat. Bril and his lone companion seemed to be going nearly berserk as they smashed everything in view – running over vehicles, trenches and tents. Everything was now burning around them. Suddenly, Moshe Bril saw the other Sherman stall, and the crew could be seen crawling out of the bottom escape hatch, running for cover in a nearby ditch dragging their .50 turret machine-gun with them. The crew appeared unhurt and to be acting in accordance with the drill which he had hammered into them on training, so for the moment he was satisfied. But now he was completely alone and right on top of the Egyptian defenders, who were still firing for all they were worth. Bril's blood was up! Passing over a narrow open stretch between two minefields, he stormed right into the centre of the camp, ignoring the heavy enemy fire which was hitting his tank from all sides. His luck held miraculously as he drove in, guns blazing, jetting flame like some storybook dragon! Moshe Bril, now slightly wounded by a shrapnel splinter, was still standing erect in his turret, directing his driver. From the fire base the major's actions could be seen clearly, as he stormed, guns firing, into a



Lt Col Moshe Bril, while commanding a mechanized brigade in the battle for Samaria during the Six-Day War in 1967. (State of Israel MOD via Col David Eshel)

hail of fire, the Sherman clearly silhouetted in the surrounding flames.

The fire base was functioning superbly as well. Capt Adolf, the regimental operations officer, was firing his guns for all they were worth. Nearby, the artillery observer called in his fire orders. However, the Egyptians were not prepared to give up just yet. They fought well, standing their ground with great courage and determination. The battle continued, with burning vehicles exploding all over the area, illuminating the desert night sky with eerie flickers. But at midnight, with all of A Company's tanks now out of action apart from Moshe Bril's, which was still on its own in the centre of the enemy camp, the Egyptians suddenly broke and fled into the night, leaving their positions burning behind them.

The colonel arrived on the scene and immediately started to organize his recovery section to repair damaged tanks, all of which were back in action before daylight, ready to block an Egyptian counter-attack, which in fact came in at dawn, as he had suspected. Abu Agheila junction, as well as Ruefa Dam, were now firmly in the hands of 82 Tk Bn, while the rest of Ben-Ari's 7 Armd Bde was fighting nearly 150 km west in the Sinai desert.

Maj Moshe Bril was decorated for bravery for his brilliant action at Ruefa Dam, but being the man he was, he insisted that his *entire* company should receive the distinction, which was indeed granted, not to be repeated *ever*, for a unit in the IDF.

This remarkable feat of arms was not the end of Bril's career. Eleven years later, Lt Col

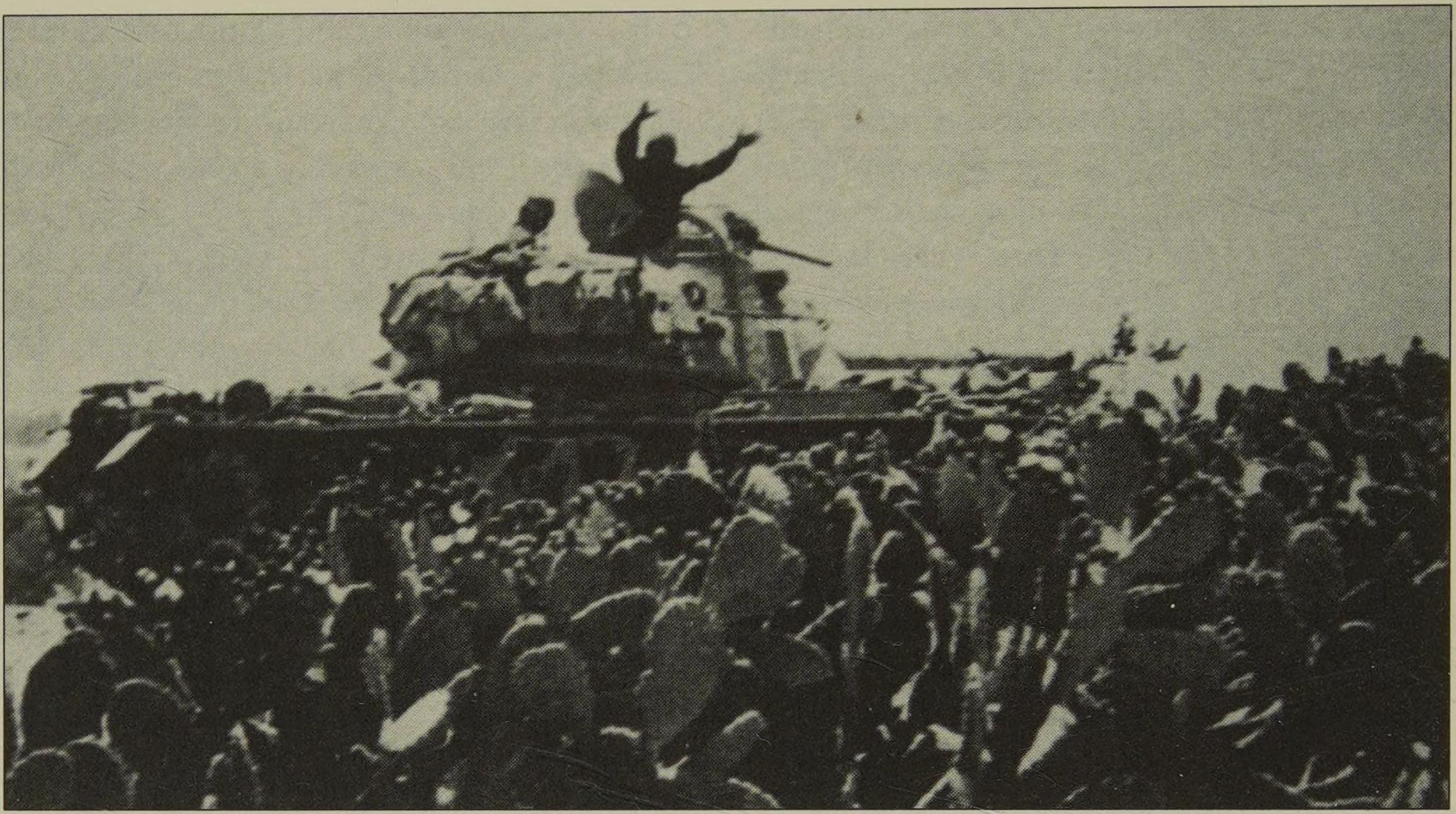
Bril led a mechanized reserve brigade in the capture of Samaria, fighting a running battle with a crack Jordanian armoured brigade at Qabatiya, with a mere battalion equipped with obsolete Sherman tanks, against brand new Jordanian Pattons. Three years later, in June 1970, while commanding a regular tank brigade on the Golan, Col Moshe Bril fought a sharp battle with Syrian armour, which earned him great distinction. Ironically, his tankers were to confront for the first time Russian-made Sagger anti-tank missiles,[6] a weapon which was to cause havoc among the IDF tanks three years later on the Suez Canal. However, on this occasion, Bril's superb leadership and professional skill enabled him to evade the Saggers and his forces suffered no losses from them in that battle. In the 1973 Yom Kippur War, Col Moshe Bril served as deputy divisional commander on the Golan front, leading a divisional task force, first stemming the Syrian onslaught and later in the great Israeli counter-attack. Even at the age of fifty-two, Bril, now a brigadier general, was still serving actively and during the 1982 Lebanon War, he commanded a two divisional task force. Twelve months later he was promoted to major general, commanding the IDF Armour Corps. His last assignment was as assistant to the Chief of Staff training and doctrine, but he died suddenly at the age of sixty-two, still on active service, from a heart attack. The man who had fought countless battles in his remarkable 45-year-long military career and who had suffered several wounds, finally succumbed to a hidden illness which he could not fight.

BRIG A. KAHALANY, ISRAEL'S PREMIER TANKER

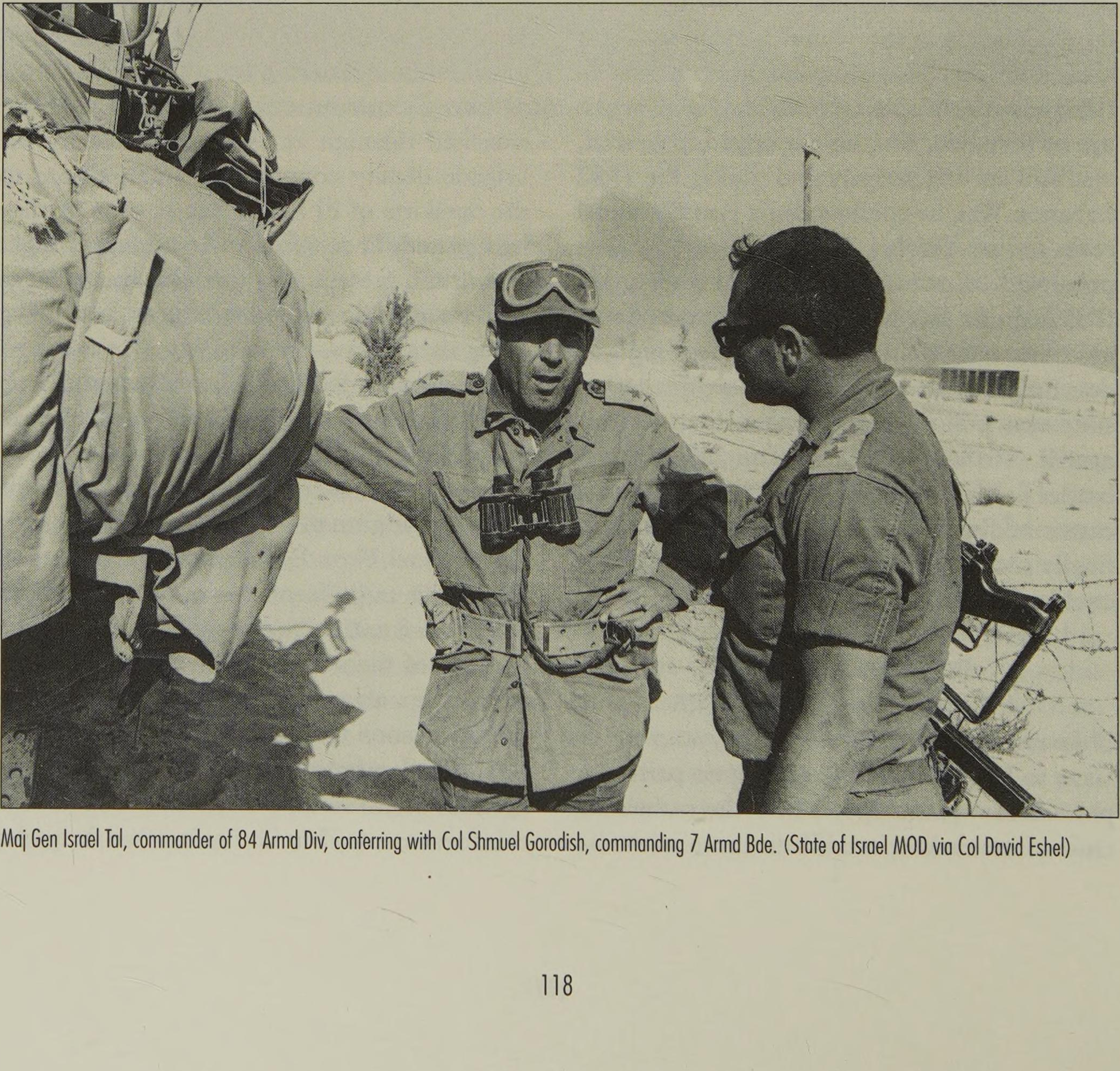
El Jeradi was named after a railway stop on the Gaza to Kantara line, there being no particular place here – just a spot where the main road crosses the track before it enters into a narrow gorge among impassable sand dunes. The position, a strong defensive complex, had already become notorious for the Israelis when, during the 1956 campaign, an Egyptian force was dug in there and fought a savage battle until overrun. Situated along a low ridge, over which the road and railway run side by side, both flanks of the gorge are impassable, the sand being too soft for traffic. Here the Egyptians had built a defensive position some 20 km in depth with trenches, minefields and dug-in guns, well camouflaged and almost impossible to identify until they opened fire. The El Jeradi complex was manned, in June 1967, by the Egyptian 121st Infantry Brigade, a force determined to put up a good fight.

After Rafa Junction was captured on the evening of 5 June 1967, Gen Israel Tal's armoured division was stretched along the Rafa–El Arish highway but was blocked at El Jeradi. The position was still very much intact, although during the afternoon, a force of two Centurion companies had actually smashed through at high speed, led by the brigade deputy commander, going all-out to the outskirts of El Arish. But as soon as they had passed, El Jeradi closed once again, tight as a drum, presenting a tremendous challenge to 7 Armd Bde, which was now advancing along the road towards the Egyptians.

The leading Patton tank, following closely behind a reconnaissance team, was hit by an anti-tank shell and stalled, its crew bailing out, rallying with some of the recce men among the folds in the ground. The brigade commander, Col Shmuel Gorodish, arrived on the scene, driving his radio jeep. A man rushed out into the road frantically signalling him to stop because of the acute danger ahead. Creeping up to the ridge, Col Gorodish scanned the scene and soon became aware of the enormous defensive complex he was facing. Making contact with Tal, Gorodish asked for reinforcements, but a mechanized brigade,



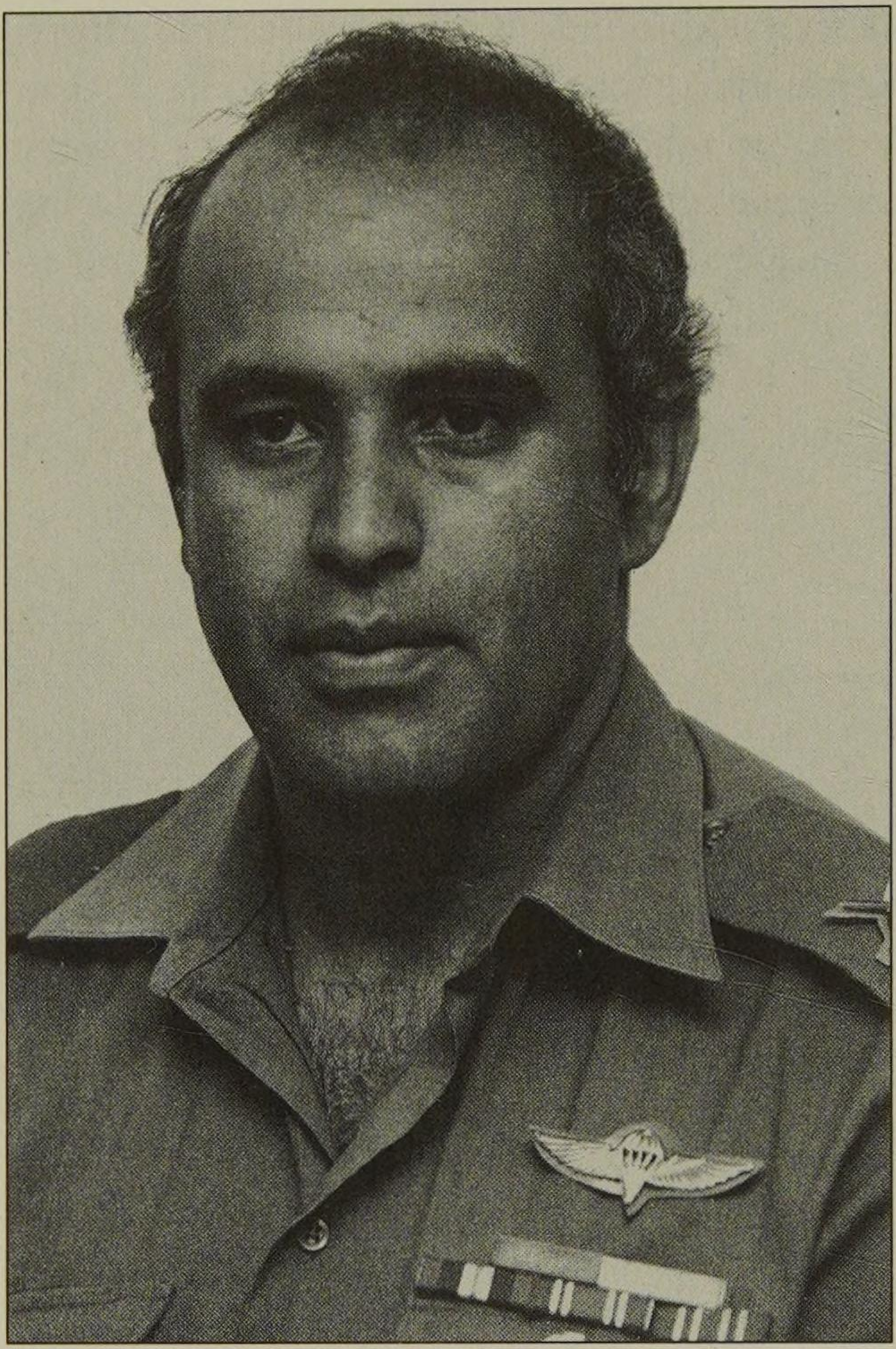
A remarkable photograph of Lt Avigdor Kahalany waving his arms as his company sets out into battle on 5 June 1967. (IDF Archives via Col David Eshel)



Maj Gen Israel Tal, commander of 84 Armd Div, conferring with Col Shmuel Gorodish, commanding 7 Armd Bde. (State of Israel MOD via Col David Eshel) which tried to outflank the position from the south, got stuck in the deep desert sands and proved to be of little help. So it was up to 7 Armd Bde to do the job by itself. Sadly, its armoured infantry battalion was still engaged in mopping up operations at Rafa and could not be spared, so it was up to the tanks to mount the attack. 7 Armd Bde assembled its two tank battalions for the assault – the 79th equipped with 90-mm gun Pattons and the depleted 82nd with Centurions. The Pattons led the way, soon reaching a bend in the road near to the place where the brigade commander had set up his forward command post. In the lead tank stood a wiry little Jemenite lieutenant named Avigdor Kahalany, leading his company into its first serious battle. He had set out that morning from his assembly area near the Khan Yunis border, and, after a mad rush through the cactus hedges, had fired his first shot in anger at some Egyptian T-34s near Rafa Junction. But here at El Jeradi the young tankers of the 79th were facing up to a serious battle rather than a headlong rush.

Just behind Kahalany was the battalion commander, Maj Ehud Elad, already wounded in an earlier battle but still standing erect in his turret, directing his tanks. Acting as loader in his Patton was the battalion operations officer, Lt Amram Mitzna, also badly wounded in his eye, but having refused to be evacuated. As they reached the brigadier a quick conference resulted in a plan that was straightforward and simple enough – to attack the Jeradi complex with a two-pronged assault astride the road, in short outflanking movements, using the ground as best as they could. Kahalany's company led the southern prong and started grinding into the sand dunes, only to be met by withering fire from all directions. The sands were becoming deeper and deeper every metre and soon the drivers had to use low gear. The enemy shells fell into the white sand with an angry hissing noise, ugly whitish circles forming round them as they exploded. With considerable effort, Kahalany reached a low ridge some 150 m from the road and halted his tank to observe the scene ahead through his binoculars, trying to locate the source of the enemy fire and to pinpoint the Egyptian anti-tank batteries, which he knew were out there somewhere. But he had little time to look. Let the young officer speak for himself of what happened next:

'I was just adjusting the eyepieces of my binoculars, when suddenly without warning, the tank shook violently. A loud explosion followed and it felt as if I had been struck by a knife in my back. I could not understand what had happened, for a second I was paralysed, then instinctively I lowered myself into the turret, but the pain was excruciating. Suddenly it struck me – we had been hit! I called to the crew through the intercom to bail out quickly. Then the heat became intense; we were on fire. I feared an explosion, the flames were all over the turret, I tried to raise myself and get out, but my strength failed me and I fell back onto the floor. I was in total shock, like a drunkard whose senses had left him. I tried to shout but no sound came. I was paralysed with fear now: this is it, I thought, I am going to burn to death. For a moment I felt relief as I resigned myself to die here. But then I smelt my own flesh burning, it was terrifying and I suddenly realized that I still wanted very much to live! I rallied my remaining strength to raise myself to the commander's hatch, making it with great effort to the seat, which was still miraculously untouched by fire. I had made it to the open hatch, so, unbuckling the radio cord, I pushed hard and fell out on top of the engine cover and then rolled off into the sand. I noticed, with detachment, that enemy shells were exploding near me as I started covering myself with sand to smother the flames. As I lay covered in sand, with only my head sticking out, I suddenly watched one of my

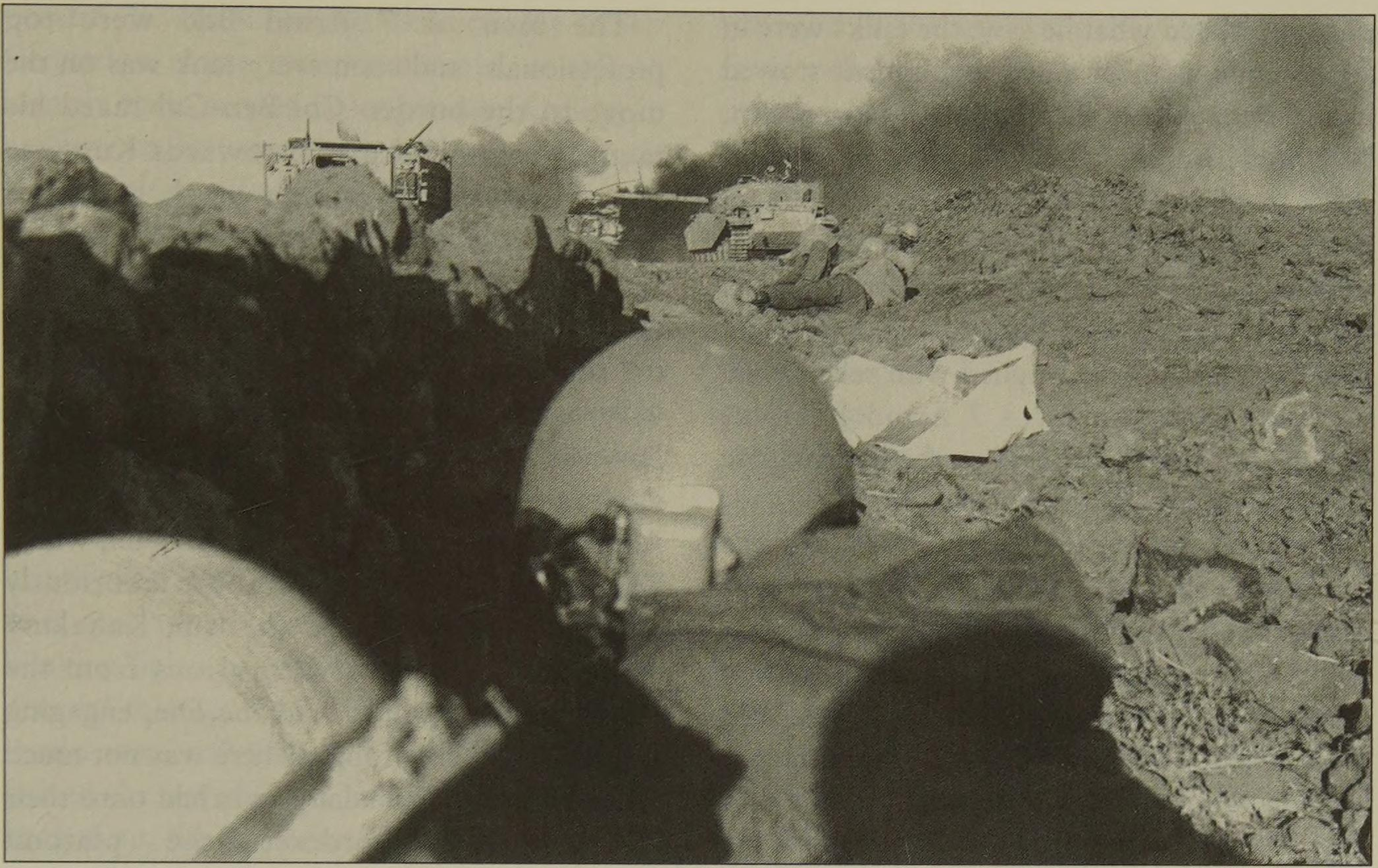


Brig Gen Avigdor Kahalany, the most decorated officer in the Israeli Defence Forces. (IDF Spokesman via Col David Eshel)

tanks coming straight in my direction, the commander looking the other way – I was about to be run over by one of my own tanks! Jumping up in terror, I raced towards the road, not realizing that I had lost all my clothes, except my shoes and radio cord! Near the battalion commander's tank I stopped, panting, and was taken aboard a jeep to the medevac assembly point.'

Nobody believed that Kahalany would live. He was almost totally burned, but amazingly he recovered, through his remarkable will to survive. In spite of the pain which never left him for a moment during his long ordeal in hospital, his smile never faded. It was a sheer miracle that after a long recovery Kahalany returned to active service and would become one of Israel's most decorated heroes in the 1973 Yom Kippur War.

But what had happened to the 79th Battalion at Jeradi, after Kahalany had left the scene? The driver of the Patton behind Kahalany had watched his company commander's tank burst into flames. He charged on, bypassing the burning vehicle on the right, but then a direct hit got him as well. Two Pattons were now burning in the sands. To their right, other tanks attempted to storm through but set off mines and were halted. Then one of the tanks located the enemy anti-tank guns by their muzzle flashes and took them under fire with its main gun, having the satisfaction of virtually blowing them into the sky. Maj Ehud Elad, the battalion commander, next led some of his Pattons into the fray. He could barely move his hand now, while a large bloody gash cut right across his face and shell splinters ruptured his back. Still he stood erect in his turret, signalling to his tanks. Near him, watching his commander with concern, trying to disregard his own wounds, stood Mitzna. As they thrust forward into the raging enemy fire, the major straightened up in his cupola, scanning the scene through his binoculars, urging his driver to speed up. But this would be the last order he gave. Mitzna heard a thump and his commander's lifeless body tumbled down onto the turret floor – headless. The rest of the crew were in total shock at the sight, but after a moment the young lieutenant gathered his wits and moved the dead body, then stood up in the cupola, signalling the deputy to take over the battalion. Bending down, he carefully covered his dead commander with a map. The attack on El Jeradi lasted all the rest of the day and on into the night, when after some delay the armoured infantry arrived, went into action and started mopping up the remaining Egyptian defenders. Finally, the way to El Arish was opened and through went the entire division, pushing hard into Sinai and reaching the Suez Canal only a few days later.



Israeli Centurions under fire at the height of the battle on the Golan, October 1973. (State of Israel MOD via Col David Eshel)

Kahalany, promoted to captain and awarded a decoration for bravery, spent a long time in hospital undergoing countless operations, suffering terrible pain, sometimes hovering between life and death, until he recovered, his severe burns healed and, with plastic surgery, his body was restored to near normal condition. When he finally left hospital, Capt Kahalany was posted as head of the Gunnery Department at the Armour School, but that was not enough for the virile youngster and he volunteered to undergo parachute training, earning his wings after twelve jumps – against the orders of both his doctors and his superiors! Soon he was fit and well again for field duty and was promoted to become deputy battalion commander of a newly raised Centurion battalion, the 77th, in 7 Armd Bde. This was a great challenge and he was ready to prove that he was his old self again. The new chapter in his military career began in a storm, which, alas, was not of his own making.

From the Jordan valley above Lake Tiberias rises an 800 m high escarpment known as the Golan Heights. These ancient hills were created by volcanic activity centuries ago, molten lava pouring out from craters, which covered the plateau with black earth. Many battles were fought over these hills, which in 1967 were captured by the Israelis, chasing out the Syrian Army, which had for some nineteen years made life in the Jordan rift valley highly dangerous for the Israeli settlers there.

6 October 1973, noon . . .

Lt Col Avigdor Kahalany, commanding 77 Tk Bn of the crack Israeli 7 Armd Bde, was making his rounds to check his tank companies deployed near the Nafakh crossroads at the centre of the Golan Heights. His highly-trained eye appreciated what he saw; the tanks were in good shape, combat ready, equipment stowed in the right places and tight – no edges seen. The anti-aircraft .50 MGs were clean and ready, ammunition belts fed into chambers. The crews of his Centurions, clean shaven, wearing tankers' coveralls with webbing, stood helmets in hand, watching their commander pass by. Most of them sighed with relief when he made no comment – 7 Armd Bde was famous for its strict discipline; the best brigade in the Army and proud of it.

Not far away, Col Avigdor Ben-Gal, the lanky 38-year-old brigade commander was assembling his subordinate commanders at Nafakh to give them an up-to-date situation report. He was a man of few words and told the assembled officers that, in his opinion, the brigade would go to war with Syria that very day! The CO came to the end of his briefing and the commanders rose to leave, when suddenly the roar of low-flying aircraft announced the arrival of Syrian jets. No sooner were they overhead than several loud explosions shook the earth. For seconds, the officers froze with the sudden shock, then a shout could be heard above the din as Ben-Gal ordered all to mount up. Gathering their maps, the men raced, ducking among the bullets from the strafing MiGs. Kahalany raced for his radio jeep, flicked open the radio and called his deputy to start up and move out. Slamming the jeep into gear, Kahalany, seeing a burning lorry at the main gate, raced for the perimeter fence, crashed through the wire and reached the main road just as his leading tank was passing by. By now enemy artillery shells were landing on the road. He would have to hurry if he were to reach his position along the border in time to stop the Syrian onslaught, which he knew would be coming soon. Jumping into his command tank, he strapped on the harness and took up his microphone – he was in his element again!

The men of 7 Armd Bde were top professionals, and soon every tank was on the move to the border. Col Ben-Gal raced his tactical command group towards Kuneitra under heavy air and artillery attack, and in his quiet voice took charge of his brigade over the radio. Kahalany's battalion was to move with all speed north, to take over blocking positions on the man-made ramps overlooking the valley to the east, over which the Syrian 9 Inf Div was already visible, pushing its armoured vanguard battalion, commanded by Maj Abdullah Qablan, towards Booster Hill, which Kahalany's Centurions were just laboriously climbing. As he neared the top, Kahalany could see a couple of Centurions from the Barak Brigade, which held the line, engaging the Syrians at long range. There was not much time to think as Kahalany switched onto their frequency and ordered the platoon commander to come under his command.

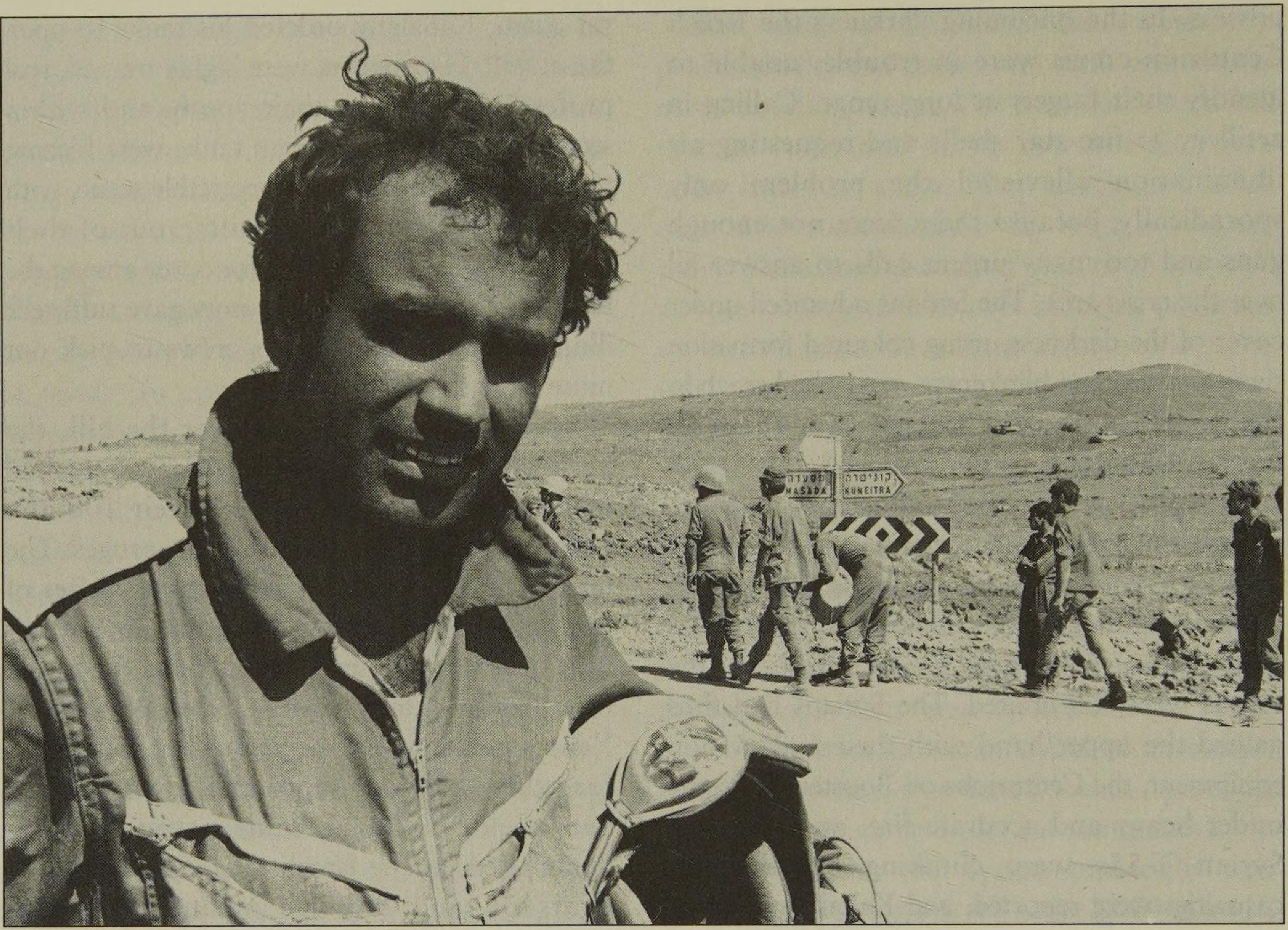
Down below, the Syrian onslaught was already in full swing but still some 2,000 m away, held up by an anti-tank ditch. Kahalany ordered all his tanks to fire on the Syrian bridgelayers, which were now trundling forwards to bridge the gap. The leading Syrian tanks soon exploded in balls of flame. By now all the Centurions were firing rapidly, the gunners were on target and one by one the Syrian tanks milling around near the anti-tank ditch were hit and started blowing up. Then Israeli Skyhawks came thundering into the fray, coming in low, trying to evade the Syrian air defence. They added to the confusion, but the price was high, several were hit and were seen trailing black smoke as their pilots tried desperately to turn west and escape the deadly enemy fire.

By now the tank battle was raging at its peak, but it was getting dark, thus giving some respite to the hard-pressed Syrian tank crews on the edge of the ditch. It also meant that the superior night vision equipment of the Syrian tanks came into its own, equipment which Kahalany did not possess. In the oncoming darkness the Israeli Centurion crews were in trouble, unable to identify their targets at long range. Calling in artillery to fire star shells and requesting air illumination alleviated the problem only sporadically, because there were not enough guns and too many urgent calls to answer all over the crisis area. The Syrians advanced under cover of the darkness, using coloured formation signs and flashing blinkers to mark the breach in the minefield and the bridges over the tank ditch. Kahalany now ordered his tank commanders to use their binoculars to try to identify the Syrian tank formation lights and IR 'cats eyes' winking in the darkness. Using these blinking lights as target indicators, the Israelis directed their gunners to fire for effect, but the results were still limited. The Syrians had thus gained the upper hand with their night vision equipment, the Centurions on Booster Hill came under heavy and accurate fire, and soon the Syrian T-55s were climbing uphill. First casualties were reported, and Kahalany, gritting his teeth as memories of his first battle all those years ago came flooding back, knew that they would not be the last that night.

From his turret Kahalany watched in awe as what seemed like thousands of blinking coloured lights advanced straight for his position in the darkness. The deafening noise of artillery fire and tank guns was almost overwhelming, but he soon got hold of his senses. Shutting out all other thoughts, he quietly ordered his young tank commanders to hold their fire, to conserve ammunition until they could actually see the Syrian tanks in their sights. It was a tricky gamble he knew, but there was no other way for his gunners to shoot effectively. The Syrians kept coming uphill. Using their short-range IR binoculars, which was all the Israeli tankers had, they at last made out the shapes of the T-55s quite clearly and, as they came in range, the gunners could at last place their night reticules onto targets. Calling desperately for illumination yet again, Kahalany ordered his tanks to open fire at will. His gunners were highly trained, real professionals despite their youth, and within seconds over a dozen Syrian tanks were blazing torches, lighting up the unforgettable scene, with enemy crews frantically bailing out of their blazing tanks and scattering for cover among the boulders. The burning hulks now gave sufficient illumination for Kahalany's crews to pick out more targets.

Soon total chaos raged over the hill, the Syrians hesitated, then rallied and pushed uphill again, firing back with their 100-mm guns to deadly effect at such short ranges. The tank battle was now being fought at ranges of less than 300 m, both sides firing for all they were worth. Too many targets filled the optics now, so Kahalany ordered the white light Xenon turret-mounted searchlights to be used for shot ranging and the dust-covered battlefield soon became even further illuminated, as the Israeli tankers flicked their lights on and off, accompanied by guns crashing with ear-splitting noise. The young colonel directed his Centurions with great skill, moving them up and down the earth ramps as best he could to escape enemy return fire. Standing upright in his turret, with bullets and high velocity tank rounds screaming by, he suddenly felt fatigue setting in. Then, right in front of him, as he was looking through his IR binoculars, he saw the huge shape of a Syrian tank coming straight at him. His tank was fully illuminated by the enemy IR projector – looking straight into his eyes! Frozen momentarily with shock, he expected the deadly shell to follow. Kahalany yelled to his driver to back off and fortunately he responded instinctively, slamming the lever into reverse gear on his commander's order – and not a moment too soon, as the Syrian 100-mm round shrieked past, missing the tank by inches!

By now, the Syrian tank battalion was nearly at the top of Booster Hill, with engagement



Lt Col Avigdor Kahalany, CO 77 Tank Bn, during a short respite in the battle of the 'Valley of Tears' in October 1973. (State of Israel MOD via Col David Eshel)

ranges down to a mere 50 m. It was becoming total confusion, tanks burning fiercely, crews dazed with shock, crawling for cover and often sharing the same holes as the enemy without knowing it. Kahalany frantically tried to rally his tanks, calling for blinkers to identify his own from Syrian tanks. It was dangerous, but it had the desired effect and soon he had identified several Centurions. Next he fired his AA MG vertically into the air with tracer rounds, announcing over the radio to make for the identified spot, then he flicked on his searchlight sporadically. Once he had gathered enough tanks together he mounted a short counter-attack along the hilltop, which threw the Syrians into total confusion and forced them downhill, where they were once again picked up by Israeli gunners with precision shots. Dawn was breaking and the night's terrible ordeal was at last over, if only for a short while.

In the morning light a horrifying scene unfolded below Booster Hill, where what seemed to be an endless number of Syrian burnt-out hulks were lying near the anti-tank ditch and in the valley beyond. So overcome by what they had done, Kahalany's tankers called the scene the 'Valley of Tears', and it was to go down in history as such.

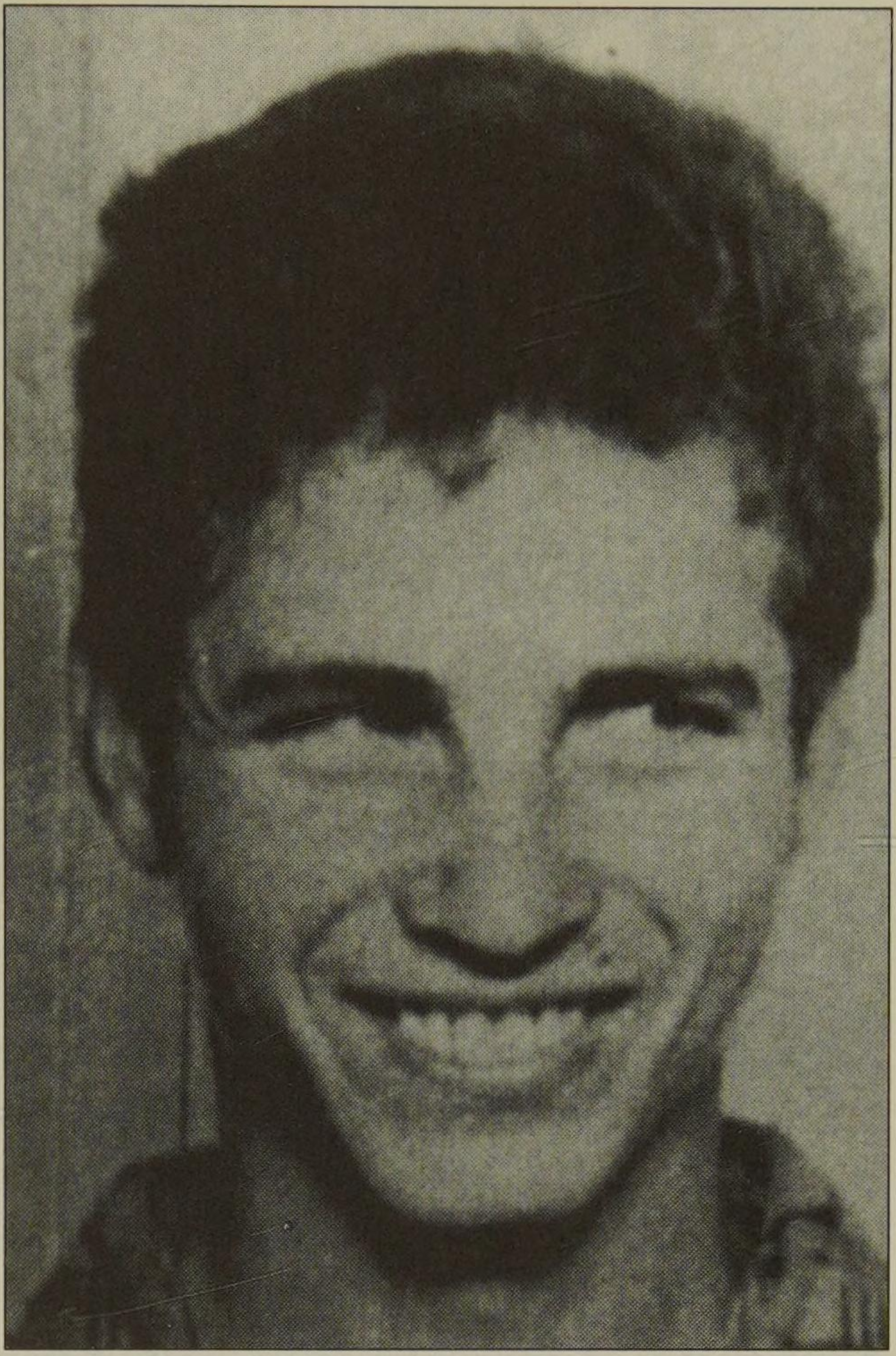
But for Col Kahalany, the battle was not over yet and, a few days later, he led the armoured vanguard into Syrian territory, helping to create what was called the 'Bulge' coming into artillery range of the Syrian capital. For his courage and superb leadership in battle, Lt Col Avigdor Kahalany was awarded Israel's highest distinction, adding to the one he had already worn proudly since his ordeal at Jeradi. Thus he became Israel's highest decorated tanker. In the 1982 Lebanon War, as a brigadier general, Kahalany commanded a division which led the way on the central axis fighting once again Syrian armour. Later he commanded the IDF General Staff and Command College. After retirement, Kahalany entered politics and is currently serving as Minister for Internal Security in Prime Minister Nethanyahu's cabinet. The little Jemenite boy, who so courageously fought, suffered and survived many an ordeal, is still going strong!

SGT Y. LEPPER,
ONE MAN'S PRIVATE WAR

At 0600 hrs on Tuesday 5 June 1967 a Patton company made up of instructors from the Israeli Armour School received orders to advance into northern Sinai, supporting the 35th Paratroop Brigade, tasked to storm and capture the Egyptian defences at Rafa Junction. Among the Patton crews was a young sergeant, barely twenty-one, named Yossi Lepper, who had been recalled from his discharge leave when the emergency started a few weeks earlier.

The company started to move out in battle order, preceding the paratroops in their half-tracks, crossing the Egyptian border, south of Rafa Gap. It was a tremendous sight, the Pattons were driving at high speed in a thick cloud of dust, behind them, deployed in wide-spread columns, were hundreds of half-tracks going into battle. But the emotional atmosphere would last for only a few short moments. Soon, enemy mortar shells were exploding all around, dirty fountains of sand erupting, as the deadly steel fell, threatening to blow to pieces the unprotected paratroopers in their open carriages if they hit home, as indeed some did. But the tank crews kept going, they were not worried by these shells, well secure in their steel hulls. Yossi, acting as loader in the leading tank commanded by Capt Amos Katz, was an experienced tanker, having spent his entire national service as a tank crewman, graduating from a tank commander course, then becoming an instructor. For him to be a member of the company commander's tank crew in his first combat action was a great honour as well as a challenge, because the officers usually selected the best crews for themselves, and Yossi felt certain that he would see lots of action. He certainly would not have been disappointed had he known what was in store for him in the next two days!

The Patton company did not have long to



The indefatigable Sgt Yossi Lepper who held out against all odds in his Patton tank at Khan Yunis. (IDF Armour Museum Latrun via Col David Eshel)

A lone Israeli Patton near Rafa village during the Six-Day War in June 1967. (State of Israel MOD via Col David Eshel)

drive before it encountered its first enemy objective, a well-placed, camouflaged mortar battery, which was pounding the approaching paratroops. Suddenly, as they crossed a sand ridge, the tanks were right on top of them. There was no time to open fire with main armament as they crashed into the enemy position, firing bursts with their machine-guns at the fleeing mortar crews and smashing the mortars in their weapon pits with their tracks. Without knowing it, Capt Katz had stormed into a fortified enemy village, named Kafr Shan, in which the entire rear echelon of the Egyptian 7 Inf Div had deployed its artillery, anti-tank and tank reserves! The Pattons had outraced the half-tracks by several kilometres and were on their own except for a single paratroop company, which had stuck to them during the 'race' and was now entering the village. As he took stock, the captain found that one tank was missing, having struck a mine. Unfortunately, just then the hydraulic system on their own Patton failed and Katz was forced to change tanks, taking Yossi with him. Yossi looked at the leading paratroop half-track, recognizing the company commander, standing erect, firing his machine-gun in short bursts at the buildings from where enemy soldiers were returning fire. The Pattons began advancing along the dirt road, firing at Egyptians, who lurked in the narrow alleyways. Then the paratroop captain pointed out an enemy T-34 tank hiding in one of the alleys, with its gun pointing directly at the half-track. However, Amos Katz was on the alert and he hit the enemy tank with his first round and it burst into flames. Just then another T-34 appeared some 60 m away, behind a cactus hedge. This time both tanks fired at one another and both scored hits. Then another T-34 fired from nowhere and hit the paratroop commander's half-track, which blew up with only one survivor. Katz's tank was now

Patton tanks of Yossi Lepper's company, during the battle on 5 June 1967, inside the Egyptian anti-tank complex. (State of Israel MOD via Col David Eshel)

on fire; the captain jumped off, his overalls ablaze, and rolled in the sand to extinguish the flames. He then climbed onto another tank and continued fighting.

Yossi, the loader, had been busy feeding rounds into the 90-mm gun and suddenly found himself alone in the blazing turret, the rest of the crew gone. He quickly disconnected his harness and bailed out, miraculously unhurt. He also jumped onto another tank as it was passing by. The tank he was in now belonged to another tank company, but he was welcome as the commander had been wounded, so Yossi changed places with him. He was just adjusting his seat, when he heard and saw a fiery flash just above his head coming from behind. The shell exploded in front of him in a fountain of dust. Just then the engine stalled and went dead. In his earphones Yossi could hear a paratroop reconnaissance leader yelling that he could see heavy tanks shooting at them from behind! Turning his head, Yossi could see two Pattons already burning, one tank commander lying prone on his engine decks. A third tank also seemed out of action. Yossi did not panic, he was strangely calm as he watched three enemy tanks, the make of which he could not immediately identify, approach within no more than 150 m. It was now or never, and he yelled to the driver to start his auxiliary generator and then the engine. After some coughs it did start – what a relief! Slamming into reverse gear the Patton ground back behind a low ridge and took up a hull-down position. Yossi saw some other friendly tanks nearby starting to take up similar positions. He then at last realized that the enemy tanks he had seen were the massive Joseph Stalin 3 50-ton heavy tanks, which he

An Israeli Patton (90-mm gun) advancing at speed towards Rafa camp. (Eshel Dramit Ltd)

had only viewed in photographs until now. With armour 40 cm thick and a large 122-mm gun, these steel monsters would make short work of his Patton, his 90-mm gun standing little chance against such a brute!

Five of these monsters were in sight at a range of some 900 m, when Yossi and the other Pattons began to engage them. They aimed at the outboard long-range fuel tanks, which one sharp-eyed gunner had identified as a good target. Indeed they were, and one by one the JS-3s halted, yellow flames erupting from their hulls. Then, with a terrific bang, one of the Stalin's turrets blew off, as the ammunition exploded. The encouraged Israeli tankers now took the remainder under fire and, within minutes, all five JS-3s were reduced to burning hulks. For the rest of that day Yossi fought several pitched battles with Egyptian tanks and scores of anti-tank guns, until he was recalled to Rafa Junction, where to his utter surprise he met Capt Amos Katz, whom he had thought to be dead after seeing him disappear, engulfed in flames, hours earlier at Kafr Shan. For the young sergeant, the first day of battle had certainly been one of great action and, although tired, he was satisfied with his performance. Little did he know that the next day would be even more hazardous for him. Being a good soldier, he took several hours of sleep; not knowing what he was going to have to go through the next day, this was certainly a sensible thing to do.

At 0300 hrs Yossi was roused from his fitful slumbers to mount up once again as Amos Katz's loader. He had to adjust to the lower position having commanded his own tank in battle only the previous day, but did so unhesitatingly at the request of his commander, whom he adored. By 0600 hrs the company had moved out, leaving Rafa Junction, once again supporting the paratroops in their attack on Khan Yunis in the Gaza Strip. The township, heavily defended by elements of a Palestinian division under Egyptian command, had already been overrun by Gen Tal's 7 Armd Bde the day before. However, the unsupported tanks had broken through the enemy defences in an effort to outflank the Egyptian positions at Rafa and had been unable to mop up due to lack of infantry. Thus, the entire defences of Khan Yunis were fully intact as the paratroopers now mounted the first serious effort to capture the town.

With the Pattons in the lead the columns advanced cautiously along the railway track going northwards, soon reaching the outskirts of Khan Unis, where the vanguard came under heavy fire from well-entrenched enemy positions. Some of the Pattons were ordered to outflank, while the captain's tank gave covering fire. Suddenly, trundling from behind a two-storey building, the giant shape of a JS-3 emerged, its 122-mm gun pointing directly at Katz's tank. The Patton gunner reacted swiftly, sending two consecutive armour piercing rounds into the huge steel hull, but they only scratched the paint off, while a third slid off the pear-shaped steel turret. The gunner was desperate, but then Yossi, remembering his own encounter the day before, shouted to aim for the fuel drums on the engine deck and indeed it worked again. The Stalin burst into flames, its crew scrambling out and running away in terror. But then disaster hit the Patton. As they were trying to climb over a ditch, it hit a string of anti-tank mines and shed both tracks, the nose of the tank slipping into the ditch, while the rear hovered on the edge. As soon as it stalled, the captain jumped clear and disappeared once again to climb aboard another tank. The rest of the crew also left, leaving Yossi, who had been hindered by his harness, on his own. When he did emerge, he found that all the other tanks had gone, not realizing that he had been left behind. The sergeant took stock of his situation. Satisfied that the ammunition bins were still nearly fully intact, he decided to stay put, considering that if he tried to emerge in the open he would almost certainly get killed by the enemy, who were still in the nearby houses. A trained tanker as he was, he remembered the slogan he had taught his students – 'You have a tank – you have ammunition – you fight!' – which is precisely what Yossi decided to do, despite his predicament.

First he crawled into the driver's position and tried to restart the engine, but to no avail. From the driver's hatch he could see the tank tracks lying flat outside, with one of the sprockets blown clean off as well. That settled it, he could never move the tank without a recovery vehicle. Back in the fighting compartment, he climbed up to the commander's seat and peered out over the rim, carefully scanning the neighbourhood. It was not a reassuring sight. The tank was perched over the ditch with its rear engine decks high in the air, barring all observation to the rear zone. On both sides of the street were two-storey houses, from whence he could see Egyptian soldiers firing from the upper windows. It was about 0800 hrs when Yossi fired his first round into one of the windows – and the firing stopped! Soon afterwards a personnel carrier appeared at the crossroads about 200 m away – he blew it to pieces with an accurate shot. Some 500 m away he noticed a truck, from which enemy soldiers dismounted, and that too was set alight with an HE round. But then trouble set in, as the left traverse became blocked. For a moment Yossi panicked. Without a full 360 degree traverse he could not shoot to defend himself. In addition, he saw a telegraph pole nearby on his right, blocking the way. In any case, he would be unable to fire to the rear as the engine deck was perched at a high angle, which would deflect any round into the air. Yossi decided to try to clear the traverse by traversing the gun round at high speed then stopping it abruptly – it worked! His time as an instructor had certainly not been wasted! With his main gun working properly, he now decided to deal with the two-storey houses, from where he feared that enemy soldiers would be able to throw grenades down on him. So he started systematically blowing away each floor with HE rounds, and the walls indeed crumbled like a house of cards. By now he could hear a battle going on in the distance, towards the centre of the town, and from his morning's briefing the sergeant realized that it must be the paratroopers. In the distance, in the direction of the sound of the firing, he could see a tower, from which he believed artillery fire could be directed, so he sent an anti-tank round right into it, blowing off completely the top of the tower. There followed a strange silence, and Yossi decided to take this opportunity to organize his tank for further fighting, which he knew would be coming.

Over an hour had gone by now, but he had little time to think. Realizing that he would need his ammunition to be near at hand, having to load, aim and fire single-handed, he decided to place it in ready position on the turret floor, and in order to clear the space, he threw out all the empty shell cases. While he was bending over the commander's hatch brim, he saw an Egyptian soldier staring at him from one of the doorways, not 10 m away. He quickly took aim with his sub-machine-gun and the figure slipped away into the shadows. Now worried that the same thing could happen to him from the unobserved rear, Yossi from time to time fired short bursts from his SMG, while bending over the turret hatch. The sounds of battle in Khan Yunis centre were still going on, and Yossi decided to try to raise contact with someone by radio. The radio was working, but he could not find his microphone, so he searched all over the tank for one; finally finding it in one of the spares boxes, he connected it and switched to transmit. Almost immediately he heard the voice of his company commander, Capt Amos Katz. At first Katz didn't recognize his voice, but having identified himself, Yossi told him of his plight. The captain was now some kilometres away fighting a pitched battle in the outskirts of Gaza, but he reassured the lone sergeant that he would come to his rescue as soon as the mission was completed – which unfortunately could still be hours away! Thus Yossi was left to fend for himself for the time being, so he clenched his teeth and decided to fight it out as best he could until the 'cavalry' arrived.

He did not have long to wait for new action. As he peered out again he saw several enemy soldiers running towards the tank, one of whom had a bazooka which he was about to fire. Yossi swung his turret in their direction and fired a long coaxial burst, toppling the man into one of the doorways. Satisfied, he saw the bazooka lying on the floor and smashed it with a well-directed hand grenade. Twice he downed enemy soldiers who tried to approach the tank, firing his gun with HE at those further away, or using his coaxial machine-gun if they came closer.

By noon, having endured his ordeal for several long hours now, the lone tanker was getting extremely tired and thirsty. There was no water reservoir inside the tank, but Yossi remembered that he had strapped two jerricans onto the outside of the turret. Carefully venturing out, after first spraying the surroundings with bursts from his SMG, he managed to lean over and unstrap one of the cans and manhandle it into the turret to quench his thirst. No sooner had he settled down, than some bullets pinged off the armour plate, announcing that the enemy soldiers were on the move once again. While he peered through the optics he felt an explosion and lost his view. At first he thought he had been hit, but patting himself all over his face he was relieved to find that there was no blood. A bullet had hit the outside of the periscope and shattered it to pieces, so he moved from the gunner's seat back to the commander's, and strapped a leather strip to the electric gun trigger so that he was able to fire the main gun or the coaxial machine-gun from that position. With this improvisation Yossi could defend himself for some time, as more enemy soldiers ventured out of the buildings to try to attack the lone tank, sitting, as it were, on their front porch! By now several enemy dead were lying near to the tank, a sight which made the survivors extremely angry and even more determined to take out Yossi's tank. To deny them access, Yossi, by now a very exhausted young man, fired sporadic tank rounds and bursts from his machine-guns, traversing in all directions so as to cover all approaches, especially his rear, which was the most vulnerable. This last area he covered with bursts from his Uzi.

Early in the afternoon, the firing from the direction of Khan Yunis centre stopped – the paratroops had apparently captured the town at last. But scores of enemy soldiers were now running along the street, escaping from the centre and rushing towards the lone Israeli tank. They did not realize that it was still manned and as the first of them came near, Yossi opened up with devastating machine-gun fire which killed some of them and caused the rest to scatter in all directions. But the battle was not over yet. Some of the more determined Egyptians rallied and rushed the tank again, firing as they came forward. Yossi saw an anti-tank rocket team set up in one of the doorways and fired two quick HE rounds at it. As he fed another round into the breech, it got stuck. Working frantically to free it, he meanwhile continued firing with the coaxial machine-gun. Then, as the Egyptians ducked indoors, he turned back to the main gun and using an extractor he managed to free the round and feed a fresh one into the chamber. He sighed with relief as the gun fired once again without mishap.

Then sadly, Yossi's luck seemed to run out. It was getting dark, when a single bullet struck the commander's hatch and ricocheted inside, hitting Yossi in the chest. Although there was not much blood the pain was excruciating and grew worse by the minute. For a moment he was paralysed and, as he did not fire, the enemy soldiers started to pound the tank from all directions. More ricochets pinged round the turret, some hitting the crewman. Although none were deadly, he was now extremely uncomfortable. As he lay on the turret floor, the fear flooded in as the pain increased. He was getting worried that his strength would slip away before help could come and relieve him of his plight. Fortunately, he had remembered to start the auxiliary generator to feed the batteries and thus he was able to operate the radio and continued from time to time to maintain contact with Capt Katz, who told him that he was trying to get closer, but was facing strong enemy opposition including anti-tank guns on the northern outskirts of Khan Yunis.

So started a race against time, with the company commander trying desperately to reach his isolated tank still on its lonely vigil in the Khan Yunis street. He did not know that Yossi was badly wounded. What made it even worse for the rescuers, was that Yossi had by now lost his microphone and was unable to find it because of his failing strength, so they were now out of contact, although he could still hear their calls through his earphones. Very afraid that Capt Katz would believe that he had been killed, when Yossi at last heard the tanks coming cautiously along the street, with his last ounce of strength he crawled up to the commander's hatch and fired a Uzi burst straight up into the air announcing that he was still very much alive! Indeed, minutes later a tank halted nearby and helping hands lifted the limp body of Yossi Lepper carefully out of the steel home in which he had fought his battle for more than eight terrible hours.

Evacuated to hospital, Yossi Lepper recovered, but not before his brigade commander paid him a personal visit, informing him that he was to be decorated with Israel's highest bravery award for his deeds. This was the Medal for Valour, an eight-pointed star of unusual design (the left half of the top point is missing, being replaced by the left half of a laurel branch which continues down the centre of the medal), worn on a plain yellow ribbon. With this medal proudly displayed on his chest, Sgt Yossi Lepper returned to his farm, where he still works today.

NOTES

1. A word about the Shermans. There were three Israeli versions used in the fighting during Operation 'Kadesh-Sinai' in 1956. The first was the old Second World War vintage M4A3, which mounted the 75-mm gun and was already obsolete and being phased out. It was being replaced by the M4A1E8 Israeli (renamed the M1 or Supersherman), which mounted the 76.2-mm gun that had been received from the French shortly before the 1956 war. Finally, there was the Israeli modified Sherman, known as the M50. This upgunned the M4A3 by mounting the French CN 75-50 HV gun. Bril's company was the first to be equipped with M50s and he fought with them at Abu Agheila. Interestingly, the Egyptians had also done likewise, about fifty of their Shermans being fitted with French AMX-13 turrets, supplied by the Batignolles-Chatillon factories and mounted in Egypt. But this solution proved ineffective in the desert conditions, as the unreliable autoloader was soon clogged with sand, while the cramped two-man turret made life miserable in the heat of the desert conditions. Thus, the Egyptians, having just received the first batches of the tanks via their Soviet-Czech deal, mostly used AMX-turreted Shermans in dug-in positions. The only recorded mobile combat recorded was one in which a few of these Shermans engaged Bril north of Abu Agheila.

Despite their shortcomings, the new 75-mm HV gun-mounted Shermans could produce a highly effective result, with rounds travelling at over 1,000 m/sec, which at the time was the best MV available on any tank. The problem was that the recoil shock was too great to hold the turret ring intact, so the Israelis had to add a counterweight to the back of the original Sherman turret, the bulge of which made the tank easily recognizable. An even greater punch was added later, when the French 105mm D1504 L/44 gun was mounted on a M4A3E8 Sherman, together with a new diesel engine, which made it probably the best Sherman version in service at the time. This was an interim solution to confront the big punch of the newly arrived Russian T-54 with its lethal 100-mm gun, to which the Israelis had no immediate reply on hand.

2. The AMX-13 was a three-man French light tank, over 100 of which were purchased by Israel in 1956. The model concerned mounted a 75-mm gun in the FL 10 turret, the gun being fed by two revolver-type magazines, each holding six rounds.

3. Staghound armoured cars were Second World War vintage AFVs, built in the USA for the British Army, with a five-man crew and mounting a 37-mm gun. A number of these very effective 13.7-ton Staghounds

found their way into service in various armies postwar, including Egypt, who acquired an assortment of some 200 plus ex-British AFVs in 1948, including Light Mark VI and Locust light tanks, Valentines, Matildas, plus Humber, Marmon Harrington and Staghound armoured cars.

4. The Archer was another Second World War AFV, being a good tank destroyer which mounted the excellent British 17-pdr anti-tank gun on a Valentine chassis. It was produced in March 1944, saw useful wartime service, and was 'passed on' postwar to other armies by the British.

5. Centurions first came to Israel in the early 1960s, and the 20-pdr main armament was regarded as inferior to the 75-mm HV gun on the then in-service Shermans. The gun was considered not up to standard and soon Israeli tank design experts, directed by Gen Israel Tal, who was then commanding the Armoured Corps, were busy drawing up widescale modifications, which improved the tank immeasurably. These included fitting the excellent 105-mm L7 Royal Ordnance gun from Britain (cf: all British Army Centurions) and the US Continental diesel main engine. Thus it was, when the Israelis were facing the new Syrian T-55s with their 100-mm guns on the Golan in October 1973, they did have a superior tank in all respects save night vision. This was of course added later and now the IDF have a high capability to conduct the night battle.

6. The Sagger was a powerful, compact, Soviet-built wire guided missile, with a range of 500 to 3,000 m and a warhead capable of penetrating 400 mm of armour.

KOREA AND VIETNAM

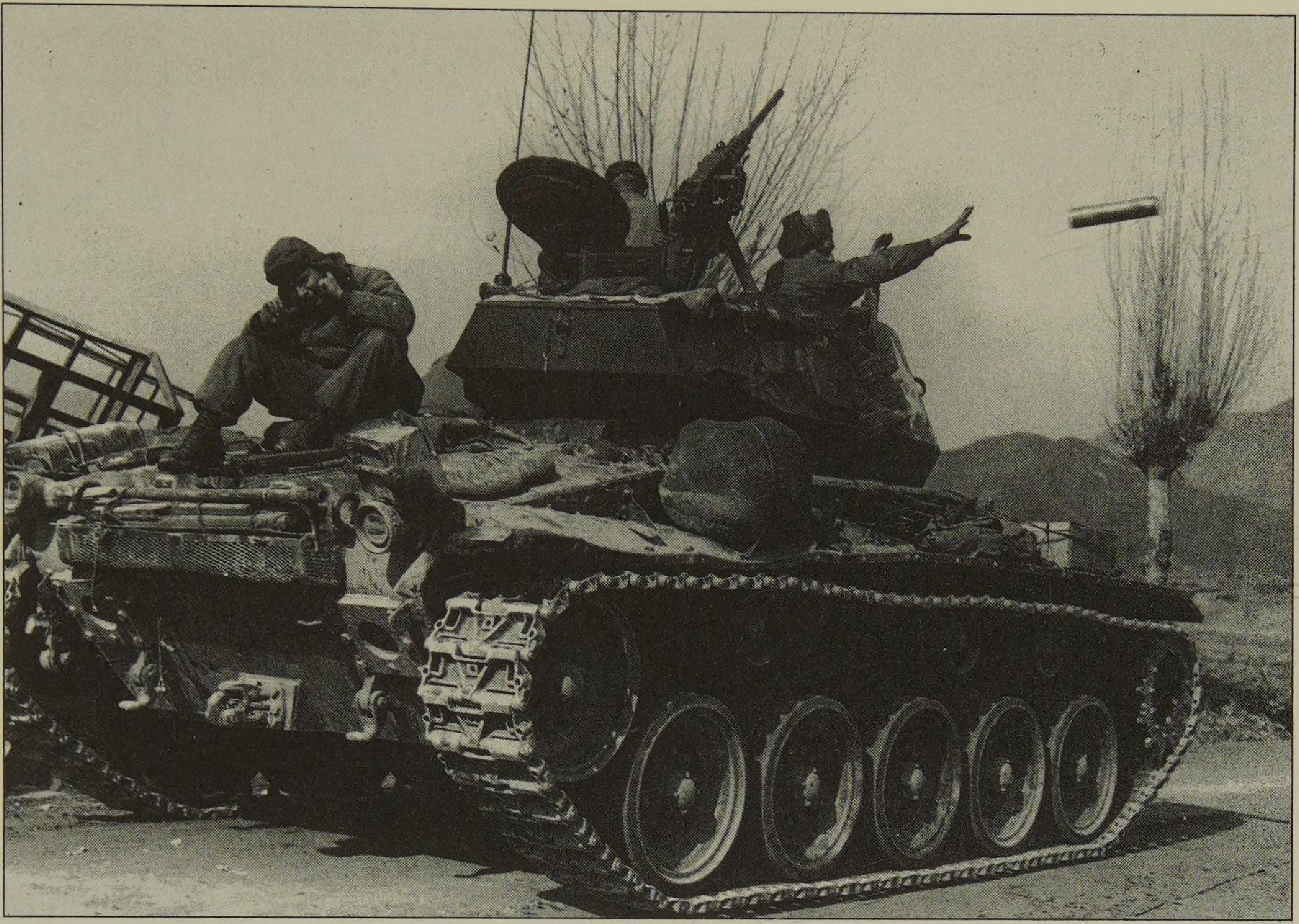
A MEDAL OF HONOR HERO OF THE KOREAN WAR

The Medal of Honor, the highest military award for bravery in the United States of America, is a five-pointed bronze star resting upon a laurel wreath, which is in green enamel. On each of the rays of the star is a green oakleaf, while in the centre is the head of Minerva in a circle bearing the words UNITED STATES OF AMERICA. The medal hangs from a bar on which is inscribed the word VALOR, surmounted by a spread eagle. It hangs from a light blue neck ribbon, on which there are thirteen small five-pointed stars in the centre portion. During the 37-month period of the Korean War, 131 American soldiers were awarded the Medal of Honor. One of these was a veteran tanker, Sergeant Charles Turner.

SFC C.W. TURNER

Born in Boston, Massachusetts, in 1911, Charles W. Turner enlisted in the Massachusetts National Guard in June 1939 and two years later his unit was called into Federal service as the 191st Tank Battalion (191 Tk Bn) on 21 February 1941 and activated at Fort G. Meade in Maryland. It went to the Middle East, arriving in North Africa in March 1943, then took part in the Salerno landing in Italy on 9 September 1943, with other troops of Gen Mark Clark's US Fifth Army. Turner saw plenty of action in the Salerno operation and then on northwards to the Naples area. Unfortunately, on 19 November 1943 he and the rest of his tank's crew were captured by the Germans. He was taken to a POW camp and remained a prisoner for the rest of the war until he was released from captivity on 8 May 1945.

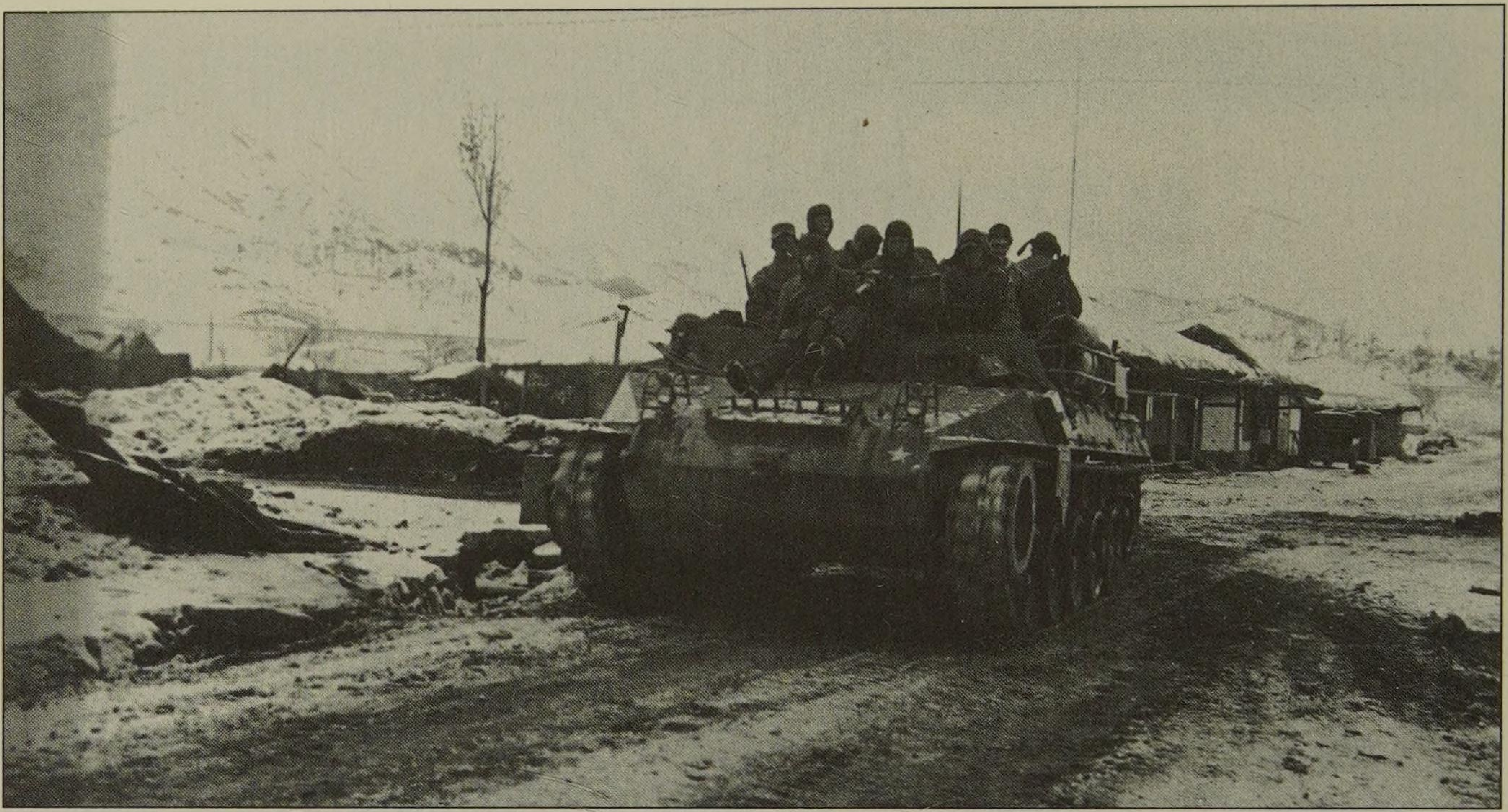
Turner chose to stay in the Army when the war ended and being an able and hardworking tanker, he was quickly promoted; by the time he joined the 2nd Infantry Division (2 Inf Div) at Fort Lewis, Washington, in late 1949, he was a sergeant first class. Just eight months later he was back on active service, boarding a troopship at Bremerton, Washington, with the rest of 2 Inf Div, bound for the South Korean port of Pusan, to join the UN force there, just a few months after the start of the Korean War. He was very worried by the stories he had heard about GIs running away from the North Koreans and was determined to show how well he could fight. He was now commanding a scout squad in the division's 2nd Reconnaissance Company (2 Recce Coy) and would soon get an opportunity to demonstrate his prowess in battle. On 1 September 1950 his squad was operating near Yongsan, not far north of Miryang on the outer perimeter of the defences around the all important port of Pusan, when he heard that the enemy was advancing towards its position in considerable strength. Carefully, he put his squad into well-sited defensive positions in support of the rest of the recce company. When the enemy attack arrived, Turner realized that its *Schwerpunkt* was about 100 yd to his left. Soon he saw that his platoon sergeant's M-24 Chaffee light tank was under heavy attack, while heavy enemy supporting fire came down on all the American positions.



An excellent shot of an M-24 Chaffee light tank, the type in which SFC Charles Turner fought so bravely at Yongsan. Its main gun was a 75-mm – the loader is throwing out an empty shell case. Note also the .50 calibre Browning heavy machine-gun on top of the turret, the gun with which Charles Turner caused so many casualties. (US Army via Simon Dunstan).

Completely ignoring the incoming artillery and mortar fire which was landing all around their position, Sgt Turner left his squad and crossed the open ground between his squad's slit trenches and the tank. Several times he had to throw himself to the ground to dodge the enemy fire, but it did not stop him from reaching his objective and, without hesitation, he climbed up onto the back decks. Despite the enemy fire which was striking the tank turret, Turner cocked the pintle-mounted .50 calibre heavy Browning machine-gun and began to engage the enemy, disregarding their intense return fire. He managed to kill or wound a large number of the enemy, while his heroic action inspired the rest of the Americans to strengthen their defence and hold the enemy at bay. As Edward F. Murphy said in his book *Korean War Heroes*: 'It didn't take the enemy long to realize Turner was the key to the American defense. The North Koreans turned their attention on him.'

During the next ten to fifteen minutes over fifty enemy anti-tank rounds hit the tank, destroying its aerials and its periscopes, while three rounds hit the machine-gun mount. The GIs who were occupying slit trenches close to the tank also suffered casualties, five being killed or wounded. However, none of this had the slightest effect on SFC Turner. Not only



A patrol from 2 Recce Coy of 2 Inf Div, moving near Chipyong-ni, Korea, during the winter of 1950/1. It is mounted on an M-39 armoured utility vehicle, which was used as an APC, command vehicle or for recce. Note the .50 Browning HMG which was its main armament. (US Army via Real War Photos)

Infantry of 2 Inf Div engaging the enemy from temporary positions near Yongsan, 2 September 1950, the day after Turner was killed. (US Army via Real War Photos)

An Honor Guard made up of Charles Turner's comrades from 2 Recce Coy poses in front of some of its AFVs at Poyongyang, 31 October 1950. (US Army via Real War Photos)

did he continue to fire the heavy machine-gun, but he also shouted fire orders to the tank crew, who were 'blind' as their periscopes had been destroyed, directing their 75-mm gun so accurately that they had soon knocked out seven enemy machine-guns and their crews. In addition, his elevated position made it possible for him to see far more of the battlefield than those at ground level, so that he was able to see the enemy trying to outflank their position and warn his platoon commander accordingly. Despite the fact that he was severely wounded, he remained at the gun shouting encouragement to his comrades.

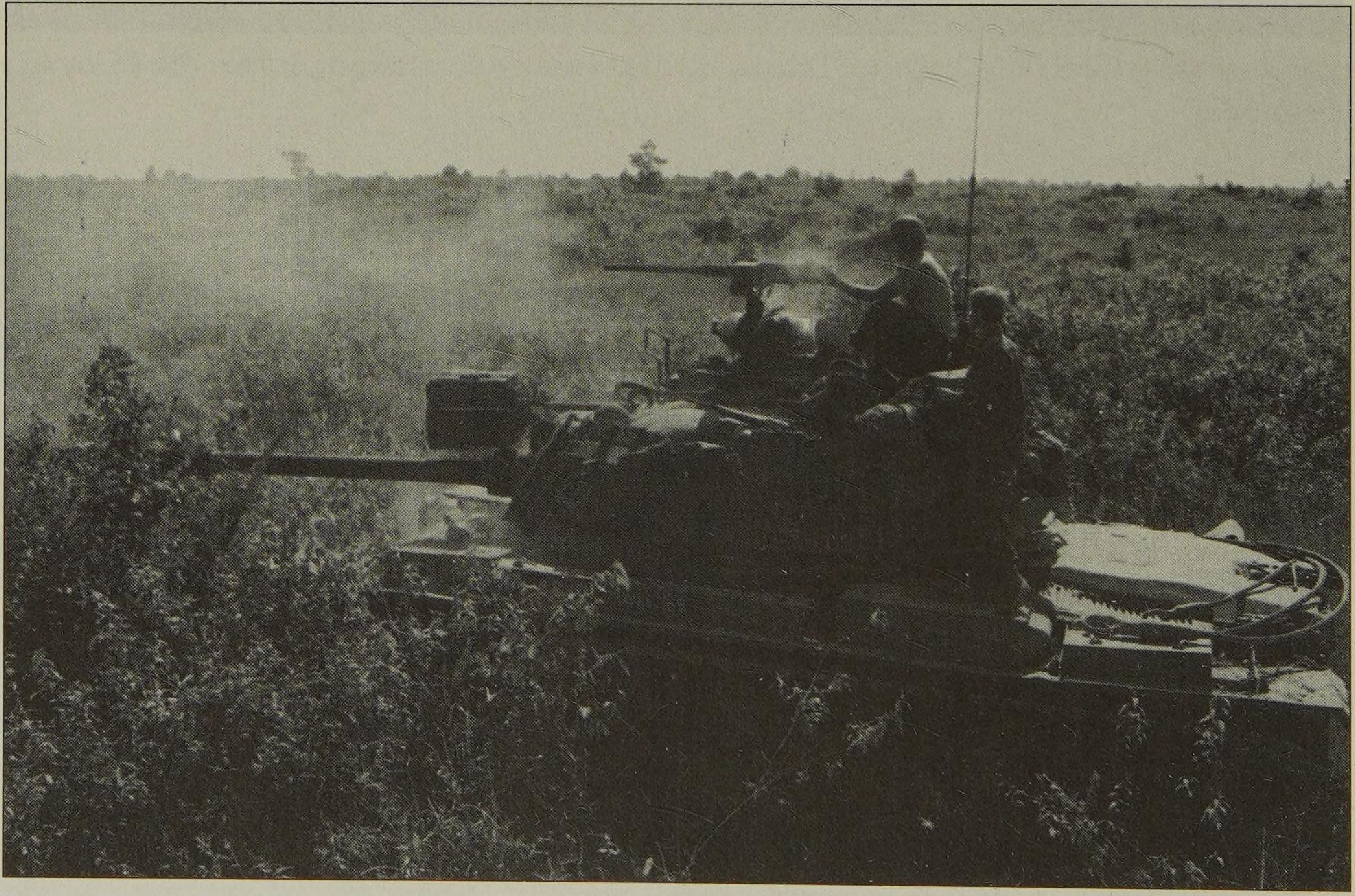
The battle lasted for over twenty minutes and all that time SFC Turner remained completely exposed on top of the tank; even when the enemy got to within 10 yd of the Chaffee, Turner never gave up. After the battle was over no fewer than fifty enemy dead were counted around the tank: 'bloody testimony to his tell-tale accuracy'. Sadly Turner's luck could not last for ever and eventually he was mortally wounded by enemy rifle fire. Without Turner's example, the American defence began to falter and, low on ammunition, the Scout platoon was forced to withdraw towards Miryang. After dark, the North Koreans moved into the low ground and entered Yongsan from the south. By 0300 hrs the following morning four enemy tanks led a complete battalion of North Koreans into the town. They also attacked D Company of the 2nd Combat Engineers, which was holding the hill that commanded the road. However, the engineers fought back bravely and although they had no artillery, they did have eighteen bazookas which they used to good effect against the enemy, together with machine-guns and other supporting weapons, thus preventing its capture. Later, however, Col John G. Hill, commander of the US 9th Infantry Regiment, managed to round up about 800 soldiers of the companies which had been overrun, then counter-attacked with the help of some tanks and the reconnaissance company. They fought their way back into Yongsan and took control of the town, knocking out several enemy T-34s. The immediate threat to Miryang had been stopped, but until the gap in the lines could be properly sealed the situation was still dangerous.

The platoon commander, Lt Decker, prepared a recommendation for the Medal of Honor to be awarded posthumously to SFC Charles Turner. It was immediately approved and Turner's widowed mother, Hazel, was presented with the medal by President Harry S. Truman on 9 January 1951.

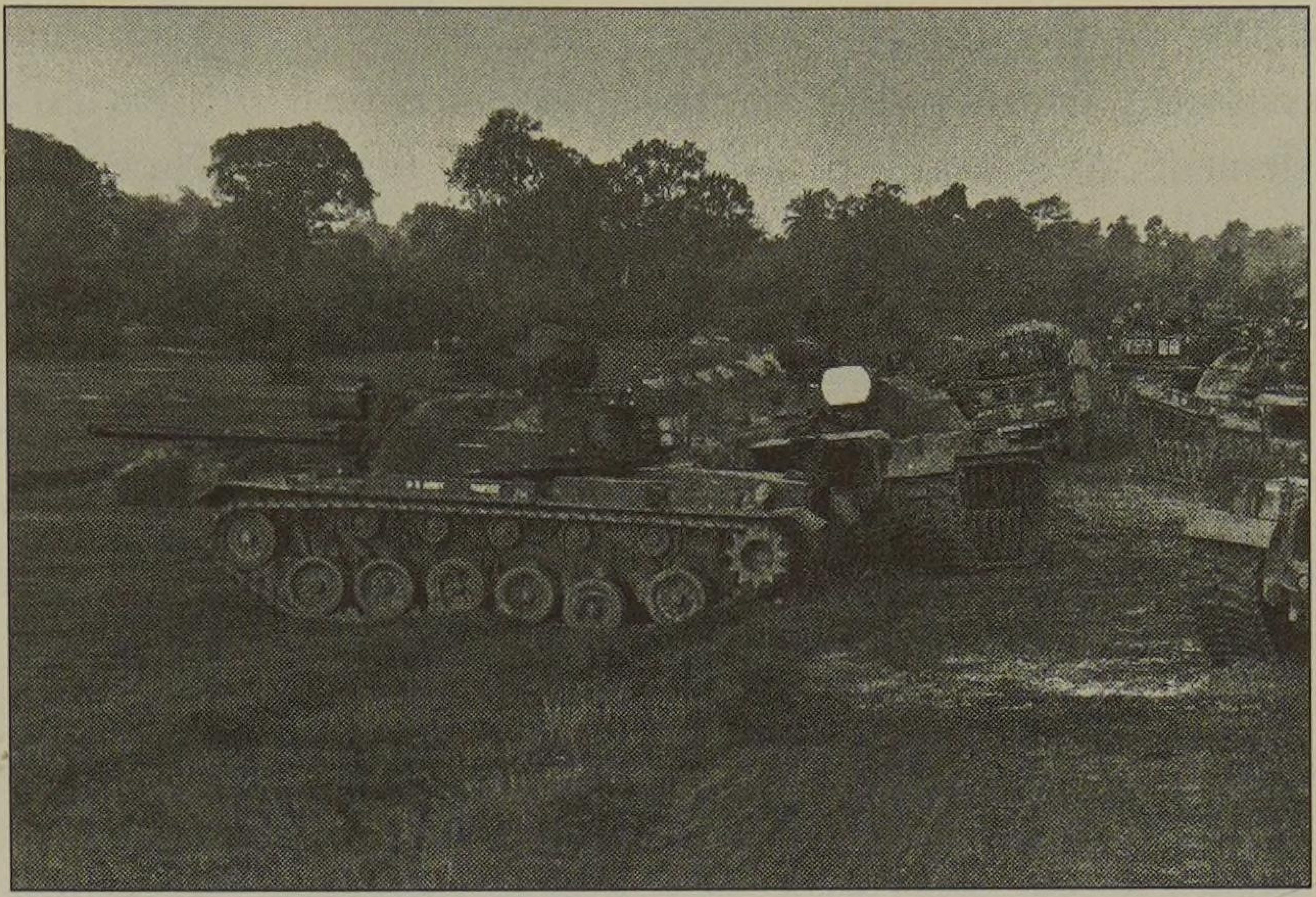
HEROES OF VIETNAM

SP5C D.H. JOHNSON

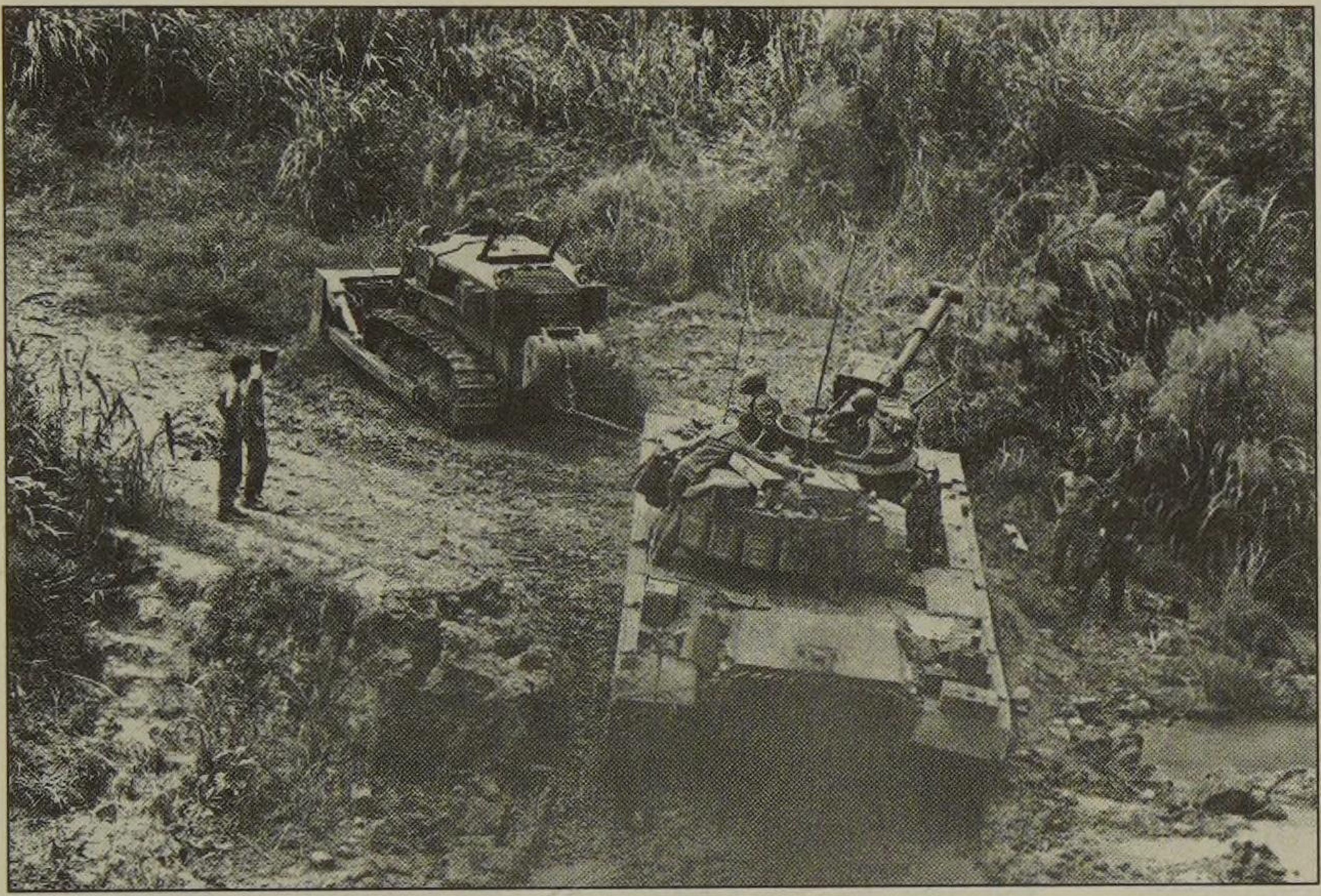
During the Vietnam War, between 1964 and 1972, a total of 239 Servicemen of the United States of America were awarded the Medal of Honor. One of these was a young twenty-year-old from Detroit, Michigan, Specialist Fifth Class Dwight H. Johnson of Company B, 69th Armored Battalion of 4th Infantry Division, who was to win his award near Dak To in Kontum Province, during a Viet Cong (VC) ambush. Sp5c Dwight Johnson, a Patton tank[1]



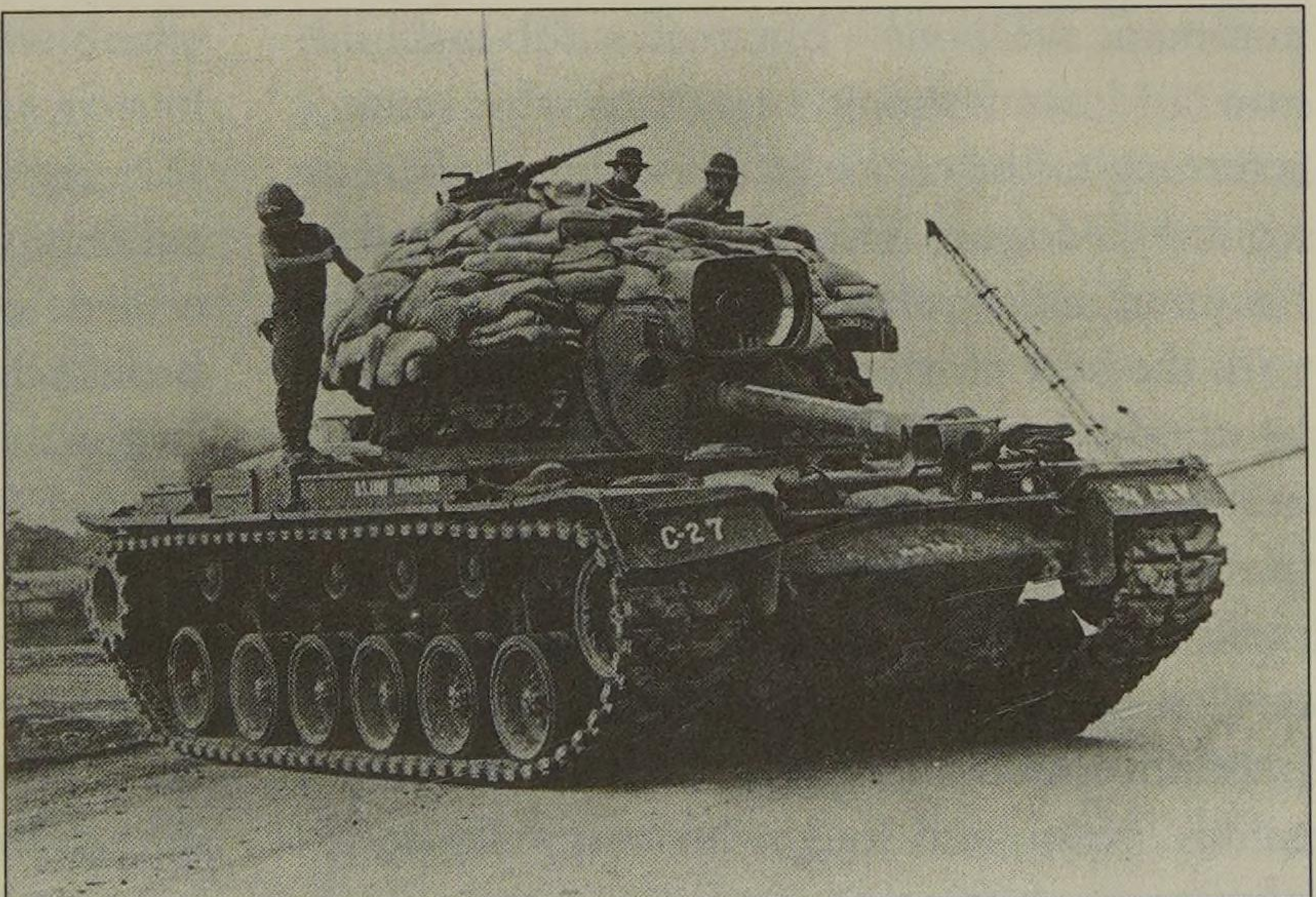
Good view of an M-48 Patton firing its guns during a test in Vietnam. Johnson killed many enemy using the externally mounted .50 Browning heavy machine-gun, as this GI is doing. (US Army via Geoff Tillotson)



Part of a tank company of M4A3 tanks on operations in Vietnam. These tanks, belonging to 3 Sqn, 11 Armd Cav Regt, move into position after reaching their objective during Operation 'Hickory', 7 October 1966. (US Army via Geoff Tillotson)



Good view of an M-48 being assisted out of a stream bed by an engineer bulldozer of 11 Engineer Bn. (US Army via Geoff Tillotson)

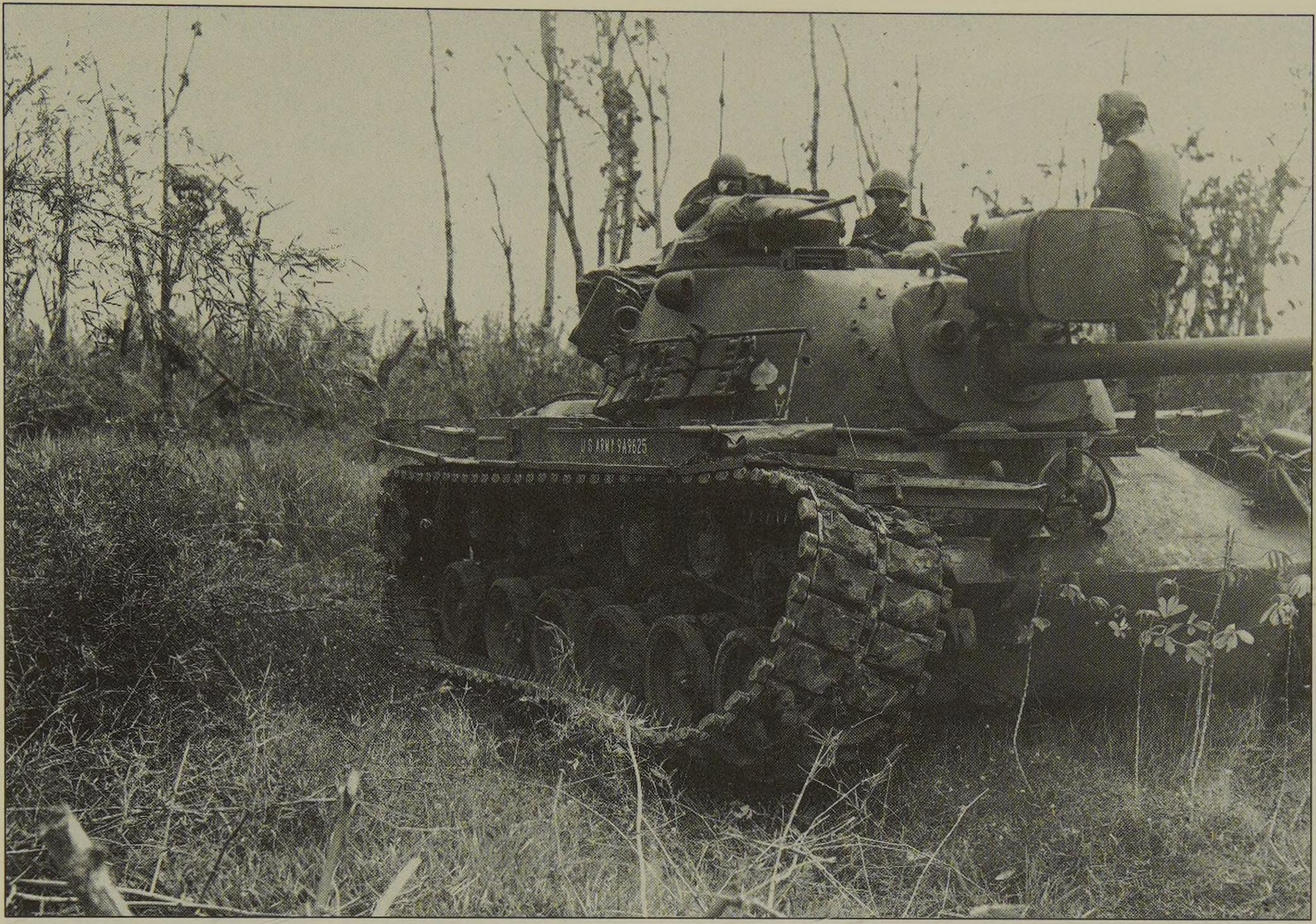


The well-sandbagged turret of this M-48 Patton might have given the turret crew more protection in a static position, but would never have lasted in close jungle. (Tank Museum) driver in Company B, was a member of a reaction force going to the aid of other elements of his tank platoon, who were being heavily engaged by a battalion-sized enemy force. A newspaper account which appeared afterwards told how, on 15 January 1968, the VC had ambushed two American convoys. The first from 4 Inf Div was taking supplies from Kontum, the provincial capital, along Route 14 to units in the Dak To area. A second convoy of forty trucks was travelling between Ankhe and Pleiku. Events in the first of these attacks led to Johnson's bravery. Enemy troops hidden in steep hillsides which closely bordered the road were firing at the leading armoured vehicles when a pair of tanks, belonging to 69 Armd Bn, which happened to be close by, moved in and attacked the ambushers.

Sp5c Johnson was driving one of the tanks. However, when they reached the ambush point, the tank threw a track and became immobilized. Johnson quickly realized that he could do nothing as the driver of an immobilized tank, so he got out, armed only with a .45 calibre pistol. Enemy fire was intense, but Johnson killed several enemy soldiers before his ammunition ran out. He then returned to his tank through heavy enemy fire – from anti-tank rockets, small arms and automatic weapons – obtained a sub-machine-gun and went back to attack the enemy, returning to the centre of the ambush where he again killed more VCs. Once more he fired all his ammunition, then killed an enemy soldier with the butt of his weapon. Now weaponless, he climbed onto his platoon sergeant's tank and rescued a wounded crew member, carrying him to an APC. He then returned to the same tank and helped to load the 90-mm main gun until it jammed. He then climbed out of the tank once more, again armed only with a .45 calibre pistol, and fought his way back to his own tank, killing several enemy en route. Climbing onto the back decks of the tank, he crawled up onto the rear of the turret and cocked the .5-in M2HB (Heavy Barrel) commander's machine-gun which was fixed on its external mounting. He then remained, fully exposed, skilfully engaging the enemy until the situation was brought under control, with the arrival of some 100 men of 4 Inf Div, supported by two helicopter gunships. Some twenty-four North Vietnamese soldiers were killed during the ambush, while thirteen Americans were wounded. Johnson's citation ends with the words: 'Sp5c Johnson's profound concern for his fellow soldiers, at the risk of his life above and beyond the call of duty, are in keeping with the highest traditions of the military service and reflect great credit upon himself and the US Army.'

2–34 ARMOR, A PRESIDENTIAL CITATION FOR THE 'DREADNAUGHTS'

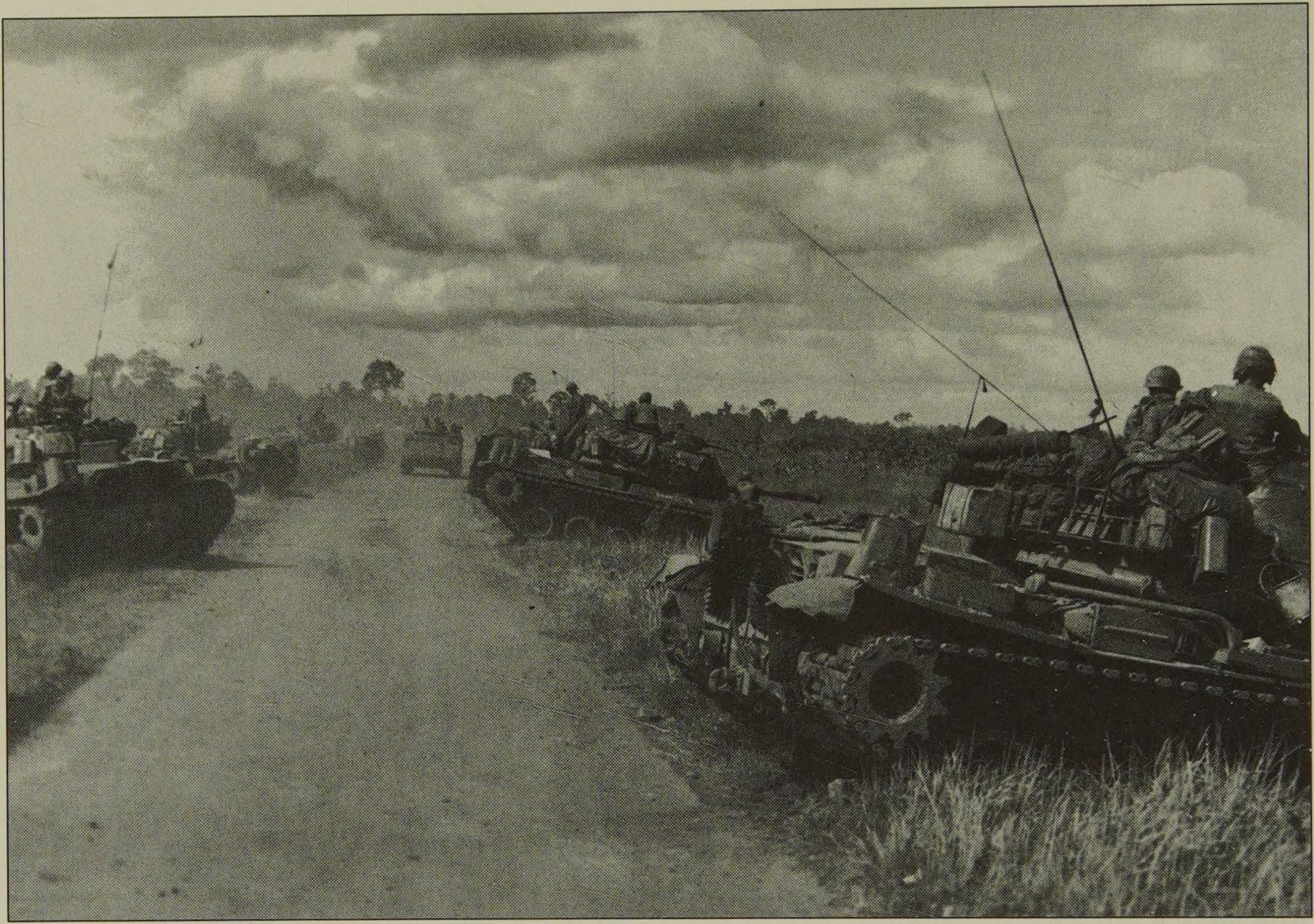
The United States of America has a system of awarding Presidental Unit Citations (PUC) in recognition of various types of service by entire units, usually during wartime, as a means of promoting *esprit de corps*. This came into being during the Second World War (Executive Order of 26 February 1942) and personnel of the unit concerned could wear the emblem, which was a piece of royal blue ribbon set in a narrow gilt frame of laurel sprays. It is worn on the right breast above the pocket. For subsequent awards a bronze oakleaf cluster is added, with a silver cluster representing five bronze ones. Several such awards were made to British units both during the Korean and the Second World War, in which case the PUC is worn just below the shoulder on the upper left arm. During the Vietnam War, the 2nd Battalion, 34th Armor, was awarded a Presidential Unit Citation Streamer, embroidered 'Suoi Tre' for its role in that battle. The battalion had also won a similar



This M48A3 belonged to C Coy of 2 Bn, 34 Armor, which was involved in the relief of FSB GOLD. It was photographed after Operation 'Cedar Falls' on 17 January 1967, after damaging a track running over an enemy anti-tank mine. (US Army via Geoff Tillotson)

award for the Battle of 'Roer River Dams' during the Second World War. During the Vietnam War the battalion was additionally awarded no fewer than three Vietnam Cross of Gallantry with Palm and Streamer, to cover the years 1966–7, 1967–8 and 1968–70, while its individual companies won three Civil Action Honor Medals (First Class) and a Valorous Unit Award. This is the story of the action at Suoi Tre which involved the relief of an isolated Fire Support Base (FSB), known as FSB GOLD.

The relief of FSB GOLD was the last armoured operation in the vicinity of Junction City, and took place after the VC had launched a massive daylight assault on the FSB, which was located near Suoi Tre. At the time, the fire base was being garrisoned by the 3rd Battalion of the 22nd Infantry Regiment, together with the 2nd Battalion of the 77th Artillery Regiment, which was equipped with 105-mm guns. In the general area were the 2nd Battalion of the 22nd, the 34th Armor Regiment and the 2nd Battalion of 22nd Infantry (Mechanized), which was conducting search and destroy operations. On 20 March 2 Bn of 34 Armor, which was commanded at the time by Lt Col Raymond Stailey, was moving north, led by A Company, 2 Bn, 22 Inf, which had been sent to link up with the tanks. By last light the two battalions had joined together and established their night leaguers less than 2 km apart. Earlier that afternoon the scout platoon of the



These M-48s, belonging to 1 Sqn, 11 Armd Cav Regt, have been deployed by the roadside to give fire cover for artillery 105-mm howitzers, near Ben Dong. (US Army via Geoff Tillotson)

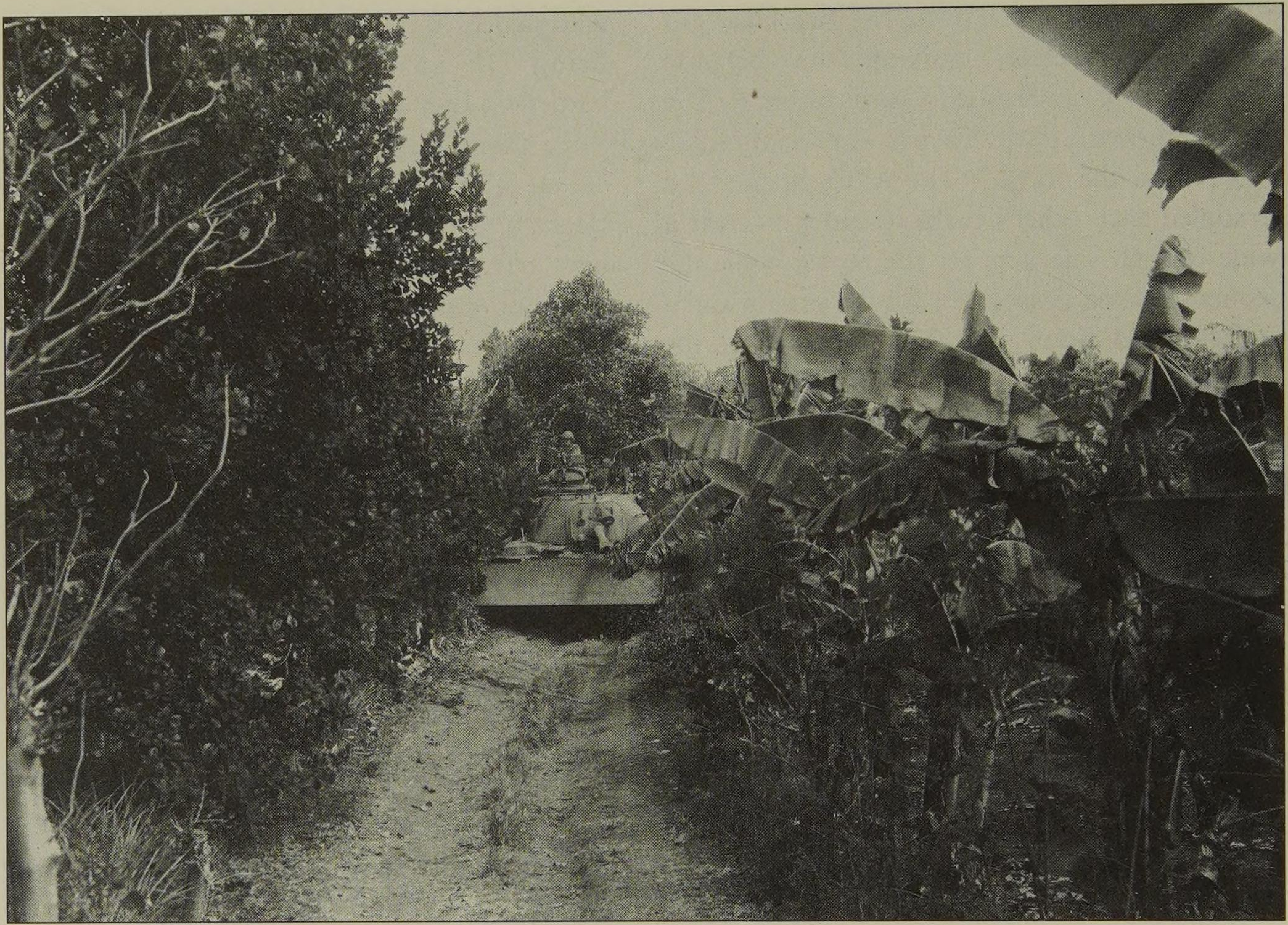
mechanized battalion had cleared a track through the jungle some 1,500 m to the north but had been unable to find a suitable ford over the Suomi Samat stream. Lt Col Ralph Julian, who was the CO of 2 Bn, 22 Inf, decided that on the following day his column would move north along the cleared track, then swing to the east to look for a suitable vehicle ford across the upper part of the stream. In its location on the other side of the Suomi Samat, about 2 km north-east of the tank battalion's leaguer position, the garrison of FSB GOLD had been working on its perimeter defences all night. Then at about 0630 hrs all hell broke loose! An ambush patrol from the fire base made contact with a large enemy force that was moving towards the FSB, while at the same time GOLD came under heavy mortar fire – over 600 mortar rounds landing inside the perimeter, while wave upon wave of heavily armed VCs came out of the jungle, firing recoilless rifles, rocket grenades, automatic weapons and small arms. The ambush patrol position was quickly overrun and the patrol had to go to ground.

As the fighting grew more intense at GOLD, the armoured units to the south of the fire base were ordered to cross the stream as quickly as possible and go to the relief of their hard pressed comrades. Lt Col Julian immediately moved up part of Company C, plus a tank platoon along the track cleared by the scout platoon. However, as the column was still closing up the situation at the fire base got worse and worse, causing the brigade commander, Col Marshall Garth, to order, 'If a vehicle throws a track, leave it. Let's get in there and relieve the force.'[2] The APCs in the lead straddled each other's paths in order to clear a wide enough safe lane for the tanks, while the scouts searched desperately for the stream and a suitable ford. Soon after 0700 hrs, despite the accurate counter artillery fire from GOLD giving the enemy mortars a hard time, the VC managed to overrun a platoon position (1st Platoon, B Company) on the east side of the perimeter, but an 'ad hoc' reserve force of artillerymen helped re-establish the situation. But under an hour later the enemy broke through again in the same place and within a few minutes more positions in the north-east of C Company were also completely overrun. A Company sent men over with much-needed ammunition, but soon they had their own problems – the VCs overrunning a quadruple .50 Browning heavy machine-gun vehicle and then trying to turn it onto the defenders and almost succeeding until it was knocked out by a direct hit from the defending artillery. At the same time A Company reported a number of penetrations in its northern perimeter.

Col Garth ordered that the stream must be crossed no matter what, even if the armour had to fill it up with their own vehicles and then drive across them! At last, with the valuable assistance of a helicopter, the armoured column found a way across the stream and moved swiftly on towards GOLD. To the north-west of the armoured vehicle column, the 2nd Battalion, 12th Infantry, was advancing on foot. They managed to reach the fire base first and to reinforce it. But GOLD was still far from secure. The eastern sector of the perimeter had given way and the defenders there forced to fall back. The VCs were now within just 5 m of the battalion aid station and in hand grenade range of the FSB Command Post. The artillery, who had used up all its flechette rounds[3] were firing HE at point-blank ranges, so the battlefield was a smoke-filled scene of carnage. 'Into this chaos came the tanks and APCs, crashing through the last few trees into the clearing. The noise was overwhelming as the new arrivals opened up with more than 200 machine guns and 90-mm tank guns.' The ground all around them shook as they cut through the enemy, crushing many under their tracks, while the VCs, realizing they could not outrrun the tanks, turned and tried to climb aboard them, but were quickly dealt with. 'Even the tank recovery vehicle of Company A, 2nd Battalion, 34th Armor, smashed through the trees with its machine-gun chattering. Most of the crew, who were all mechanics, were throwing grenades, but one calm mechanic sat serenely atop the vehicle, his movie camera grinding away.'[4]

Among the tank crews of 2 Bn, 34 Armor, was Gerald Charles Lapp, who is now the Treasurer of the Green Bay Chapter of the Disabled American Veterans. He had recently returned to his unit from hospital after injuries to his left eye and left calf. In his absence his position as loader on tank C-32 had been filled by a replacement, so he had been temporarily assigned to C-25 tank. He recalled the action thus:

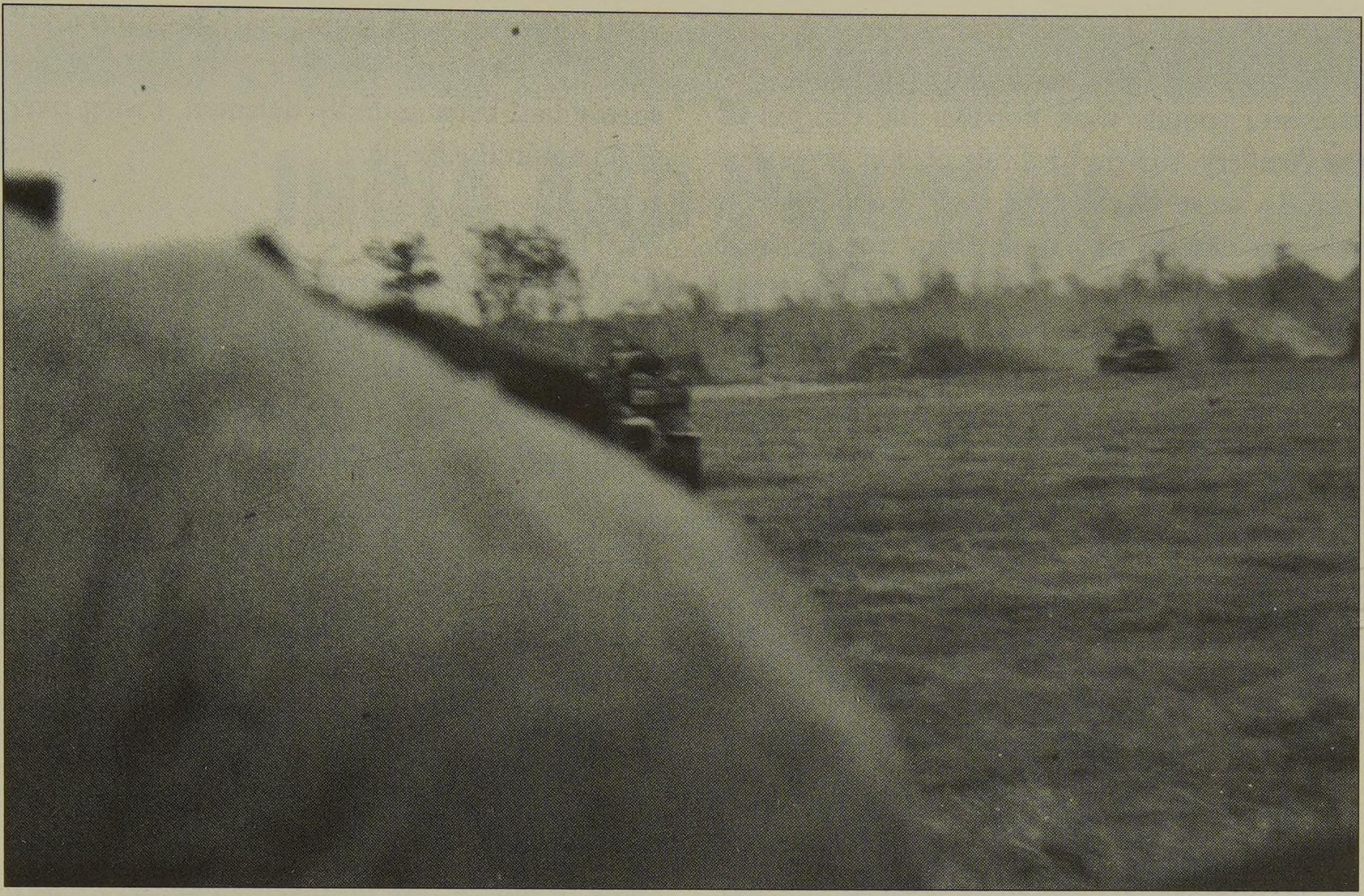
'March 21st started normally for a tanker in the field. Four people on a tank shared 10 hours of guard duty a night. Guard duty started at 20:00 and finished at Stand To at 06:00. . . . I do remember that we were not the lead tank, but 2nd Platoon was lead platoon. . . . Movement through the jungle is very slow and tears up the gun tube aiming, overheats engines and tears up transmissions. While C-25 was not lead tank we were close to the front tank. I do remember the engines racing through the path the lead tank cut to get to the FSB. Several times on other operations when C-32 was lead tank and we were pushing



Although this jungle track running along the edge of a banana plantation has been cleared, it does give some idea of the thick jungle which GI tankers had to face in Vietnam. The tank, an M48A3, is fitted with a dozer blade. (US Army via Geoff Tillotson)

through the jungle, I as loader, was responsible for cutting the vines off everything that they hang on to. One time the fender brushed against a tree that had a nest of those big red army ants hanging from a limb. The nest fell on the turret of the tank and a zillion mad red ants were soon all over the top. As the tank commander (SSgt Sheets) and I were spraying or swatting these ants I saw one climb up my arm to my shoulder, up my neck and into my ear. He clamped down on something inside my ear and I had never been in more pain in my life. The tears were rolling out of my eyes until SSgt Sheets poured some water down my ear and flooded it out. Another time when we were lead tank, we stopped to give me a rest from cutting off all the vines and I was leaning against a nearby tree standing on the fender. SSgt Sheets looked over towards me and asked: "Who is your little buddy?" Several inches from my hand on the tree was a little snake that SSgt Sheets said was a Banana Viper. I do not understand these Vets that want to go back to that country.

'Anyhow, back to the war. As the tanks were racing up and down these trails to get to GOLD I was down inside. The centre of gravity on a tank is so high that once it starts bucking back and forth racing down these trails it is very difficult to stay up top in the loader's hatch without getting thrown around. Down inside I was having a hard enough time



The Battle of FSB GOLD. This was Gary Lapp's view when he looked out of his turret during the battle as the company charged onto the FSB. (Gary Lapp)

holding onto anything that would give me support. Sitting on the loader's seat, feet spread apart for directional support, right hand on the steel grid that protects the radios from the shell casings coming out of the breech block, left hand holding onto the gun carriage. That's the best place to be. Once we broke through onto the LZ (Landing Zone) SSgt Badoyen told me to get ready. One of the prides I had in being a lowly loader was that I knew how to keep the 7.62 Coax machine-gun going and that I could load the main gun so fast it sounded like a semi-automatic. I remember we raced across the opening for some distance before we opened fire. I do remember members of 77 Artillery waving and cheering as we raced around them moving north-east. We had not opened fire yet but we were in the clearing. I jumped up in the loader's hatch and I could see the black grille doors of three other tanks in front of us, meaning that we were the fourth tank into the clearing. Once I had jumped down and was loading the main gun and keeping the Coax firing without jamming I remember thinking: "This is it, this is real combat. I wonder if an RPG (rocket launcher projectile) will come through the front slope and kill us all? Hope SSgt Badoyan has his pistol ready to keep anybody from jumping up on the tank and throwing a grenade down inside." I just kept loading that main gun and keeping slack in the belts of rounds feeding into the Coax. I remember seeing the empty shell casings falling on the floor and hearing the ringing that they made as they fell on the floor of the turret. I remember taking my boot and keeping them away from the turret ring because when several of them got stacked up on the floor they would roll over to the drive gear and jam it up. The charges in the tank cannister rounds were not like the charges in the Artillery 105-mm rounds. These expended rounds were really hot (we wore special asbestos mittens to handle them but the heat even got through these). The shell casings cooled off fairly quickly so you could handle them after about ten minutes but the loader still had to keep them out of the ring gear. After it was all over I jumped down off the tank to retrieve an AK-47 automatic rifle that had been left by someone not wanting to carry it any more. While I was on the ground I remember seeing the small ditches that the grass had hid. The ditches looked perfect for someone to crawl in without being seen.'

The charge by the tanks had been an immediate success, as the fire base commander, Lt Col John A. Bender, exclaimed: 'It was just like the late show on TV, the US Cavalry came riding to the rescue!' Another defender, Master Sergeant Andrew Hunter, recalled: 'They haven't made the words to describe what we thought when we saw those tanks and armored personnel carriers. It was de-vine!' The FSB had not only been relieved, but the enemy had been soundly defeated, losing over 600 men in the battle.

NOTES

1. The type of preferred Patton for service in Vietnam was the M48A3, because it was fitted with a diesel engine, giving a better performance and greater crew safety in case of a 'brew-up'. Weighing over 50 tons, yet capable of speeds up to 30 m.p.h. and reasonable going, it mounted a 90-mm main gun as its main armament. The M48A1 and M48A2, both of which had petrol engines, also saw service in Vietnam. There were also variations including an Armoured Vehicle Launched Bridge and a Recovery Vehicle.
2. As quoted in *Armoured Combat in Vietnam* by Gen Donn A. Starry.
3. Known as 'Beehive' ammunition, these contained thousands of steel arrow heads (flechettes) which were far more lethal than the normal ball-bearing type of canister round filling.
4. Starry, *Armoured Combat in Vietnam.*

INDIA AND PAKISTAN

INDO–PAKISTAN CONFLICTS

On 14 August 1947 India and Pakistan became separate countries within the Commonwealth. Sadly this momentous event was accompanied by widespread communal violence which led to the deaths of over a million people. Since then, the two countries have been uneasy neighbours, with warfare flaring up again and again in various disputed areas. Three of these incidents have been significant enough to be classified as 'wars', in which tanks have been used to good effect. The first of these was the 1947/8 conflict in Jammu and Kashmir, when Kashmiri Muslims rioted in favour of Pakistan and the Pakistan government declared a holy war (*Jihad*) in their support, sending in troops against the Hindu ruler of Kashmir. When the capital, Srinagar, was threatened the maharajah appealed to India for help. The Indian Army subsequently gained control after some fourteen months of fighting and a UN-brokered ceasefire brought the conflict to an end on 1 January 1949. This was followed in 1962 by Pakistan laying claim to half of the Rann of Kutch by calling it an inland sea, because it floods with shallow salt water from the Arabian Sea between May and October – the rest of the year it is a dry plain.

The second major conflict was the twenty-two day war of 1965, which is the largest tank war ever fought in Asia to date. Over 1,500 tanks were involved and many were knocked out. The tank battles took place in two main areas – the Sialkot and Lahore sectors of the Punjab. The third conflict, which is known as the 'Lightning War', took place in 1971 and was a direct result of the eastern province of Pakistan declaring itself to be the independent republic of Bangladesh. In addition, of course, there has been India's war in 1962 against China over disputed border areas. Armoured vehicles, in particular tanks, have played a major part in all these conflicts and there have been some extraordinary acts of bravery in battle leading to tank commanders on both sides receiving awards in recognition of their courage and expertise as tank 'aces'.

The highest Indian award, the *Param Vir Chakra* (PVC), which is India's equivalent of the Victoria Cross, has been awarded twice to members of the same regiment, the Poona Horse (17 Horse), first in 1965 and again in 1971. The PVC was instituted on 26 January 1950 and is awarded for most outstanding bravery, or valour, or self-sacrifice, shown in the presence of the enemy. Its ribbon is deep purple. It should, of course, be emphasized that these are but two examples of the many acts of heroism shown by Indian tankers in armoured actions and I am very grateful indeed to Commander S. Varma SC IN (Retd) of New Delhi, who has very kindly supplied me with both the material and photographs on these two Indian tank aces. I am also most grateful to the families of these gallant officers and to the Poona Horse, for the loan of their personal photographs.

TANK VERSUS TANK

Before looking at these aces it is worth commenting on the main AFVs that were used by both sides. In the early days both India and Pakistan had a mixture of Second World War AFVs which they had obtained from the major

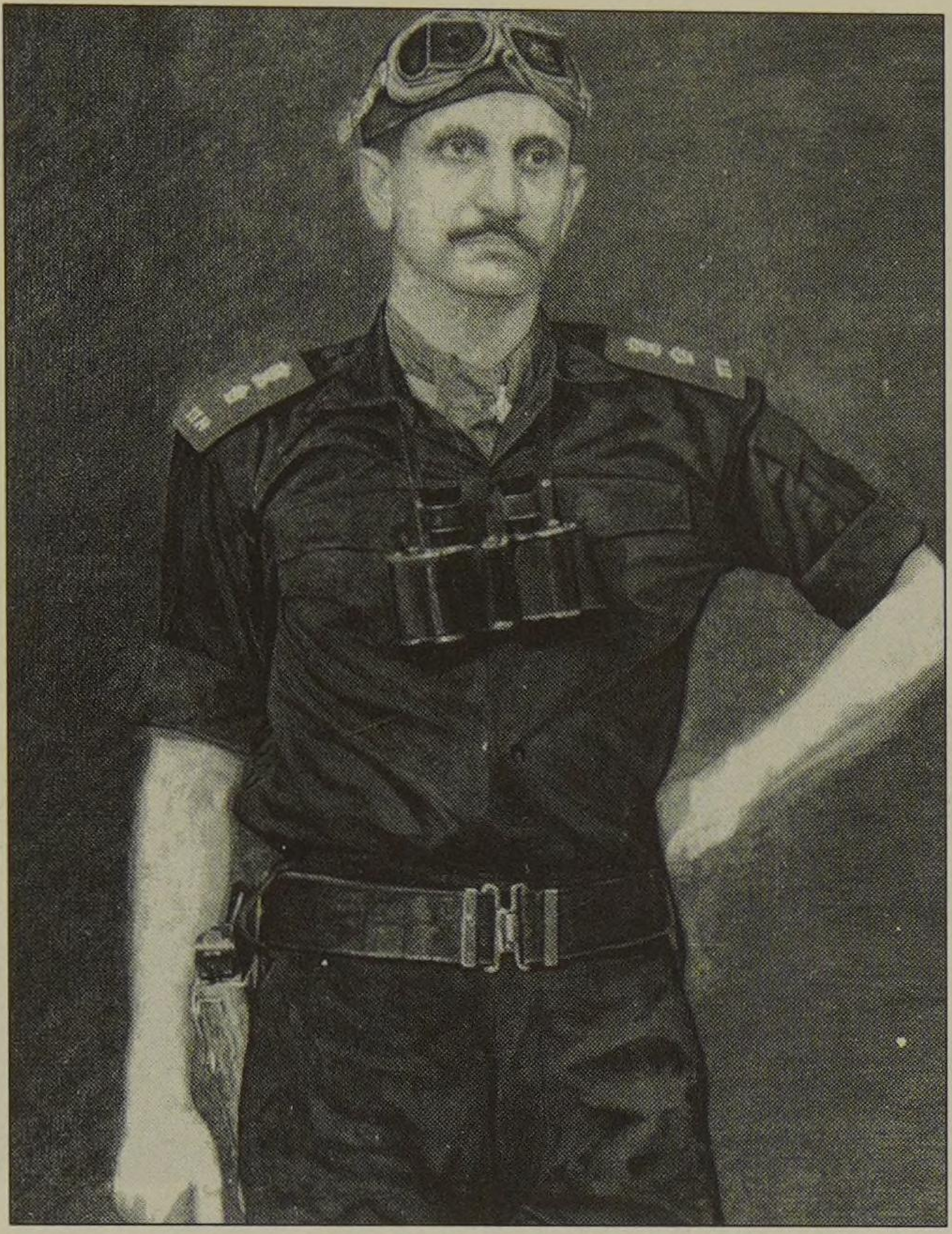
Allied tank builders (e.g. USA, UK and the former USSR). However, in 1965 and again in 1971, much of the action was between Indian Army Centurions – a British world beater of the postwar era, while Pakistan had the far more sophisticated American M48 Patton. But it was not just the AFVs themselves. An independent survey after the 1965 war considered that the Indians had handled their tanks better than the Pakistanis, not only because the Centurions were simpler and less difficult to operate, but also because their crews were better trained, which had a positive bearing on the tactical handling of their AFVs. The survey found several examples from operations in Kashmir, where the Pattons had tried to 'steamroller' their way across the Indian defences without bothering about their flanks. A lack of armoured infantry also precluded tactical exploitation of initial gains. In addition, when fuel and ammunition supplies were exhausted and Pakistani tank columns ground to a halt, they were easy prey for Indian tank hunters. The heavier Pattons also found it more difficult to manoeuvre on the rain-soaked muddy ground, while the height of the sugar cane and grass meant that Patton tank commanders had either to operate blind or climb up on their turrets, scan the fields with their binoculars, then shout down orders to their crew – the exposed commanders were, of course, easy prey to snipers, artillery and mortar bursts. A summary of the AFV casualties in the Kashmir War is: India – 114 tanks and 57 armoured cars; Pakistan – 471 tanks and armoured cars in total.

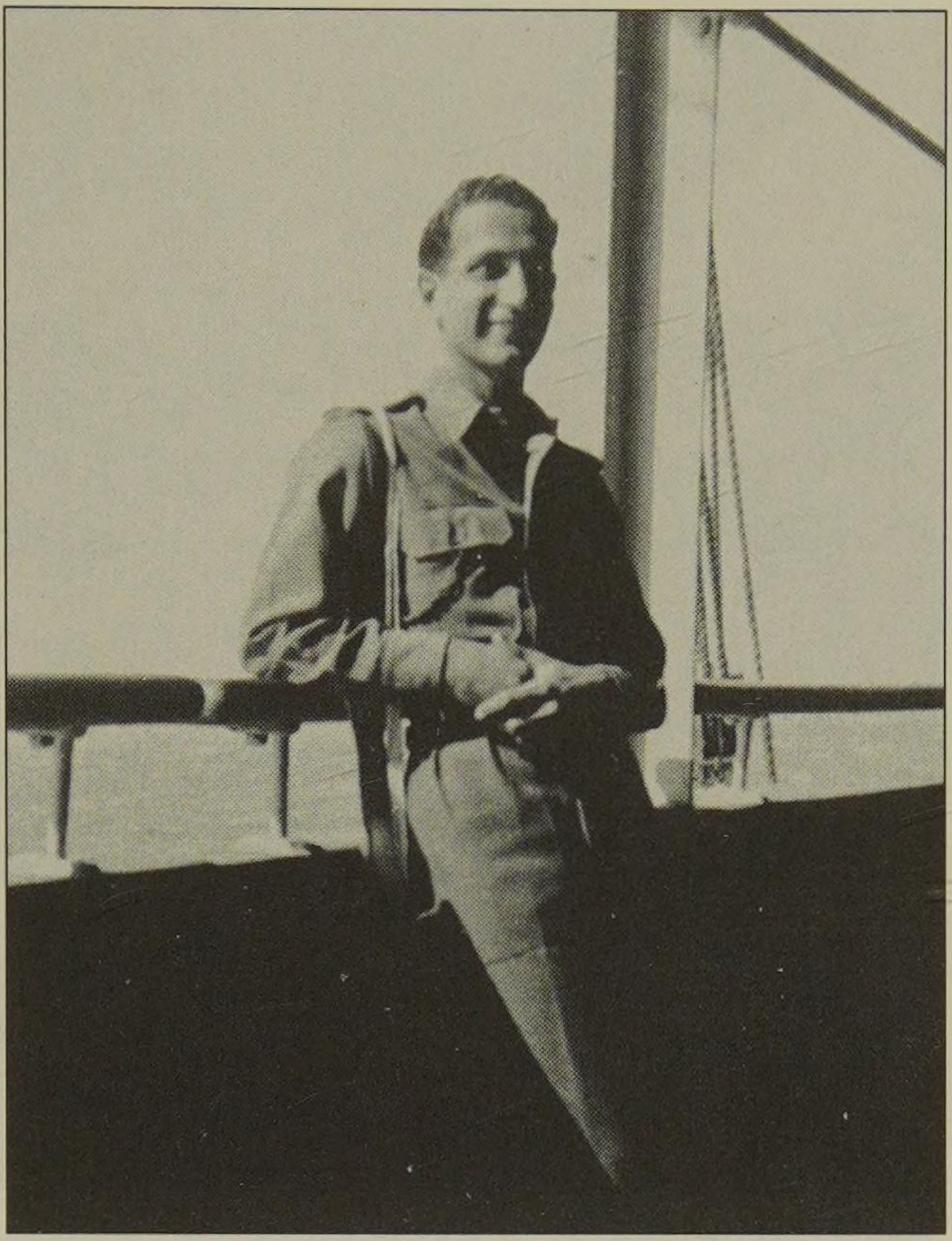
LT COL A.B. TARAPORE, THE PRIDE OF INDIA

In war the enemy very seldom acknowledges the presence of a hero on the other side. It happened with Field Marshal Erwin Rommel in the Second World War, as was evidenced by a remark made by the then British Prime Minister, Sir Winston Churchill, in the House of Commons in January 1942, when he said with reference to the 'Desert Fox', 'We have had a very daring and skilful opponent against us and may I say across the havoc of war, a great General.' It happened again during the Indo-Pakistan war of 1965, when, on learning about the death in action of Col 'Adi' Tarapore, then commandant of the Poona Horse, Pakistan's famous newspaper *The Dawn*, described him as *Fakr-i-Hind* (The Pride of India). Since his death, the Poona Horse has proudly adopted this title.

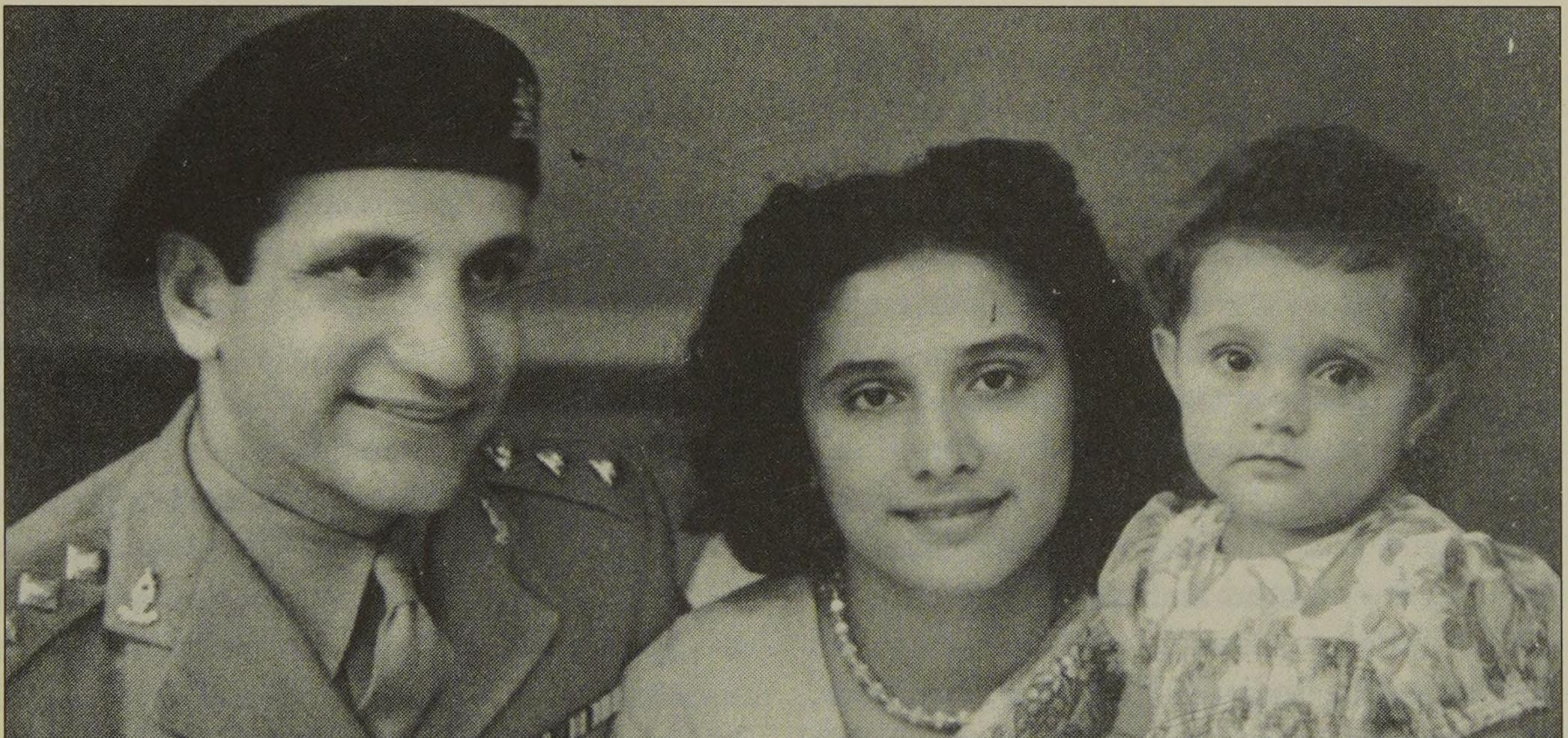
Born on 18 August 1923 into a well-to-do Parsi family in Bombay (now called Mumbai), Ardeshir Burzorji Tarapore had his early education in Poona (now Pune) and matriculated in 1941. It was wartime so he immediately volunteered for the Army and was sent to Officers' Training School in Bangalore, being commissioned into the Hyderabad State Forces, as his father was in the Customs Department of that state. He was posted to the Hyderabad Lancers and saw active service with them in the Middle East. In 1947 he married Perin Buhariwala and raised a family – first a daughter, then a son. According to his daughter, Zarine, he was a devoted husband and a doting father. After the state forces were amalgamated into the Indian Army in 1948, Tarapore was one of the very few state service officers to be taken into the regular Army. Being a cavalryman, he was posted to the Poona Horse on 1 April 1951. Steady promotion followed and he was among the first officers selected to go to the Royal Armoured Corps Centre at Bovington, England, for training on the Centurion tank. He was an alternate delegate ICSC in Laos in 1963, returning a year later to become 2IC of his regiment. He assumed command in April 1964, fulfilling his life-long ambition.

This was a time when a 'real war' with Pakistan looked a distinct possibility – not like

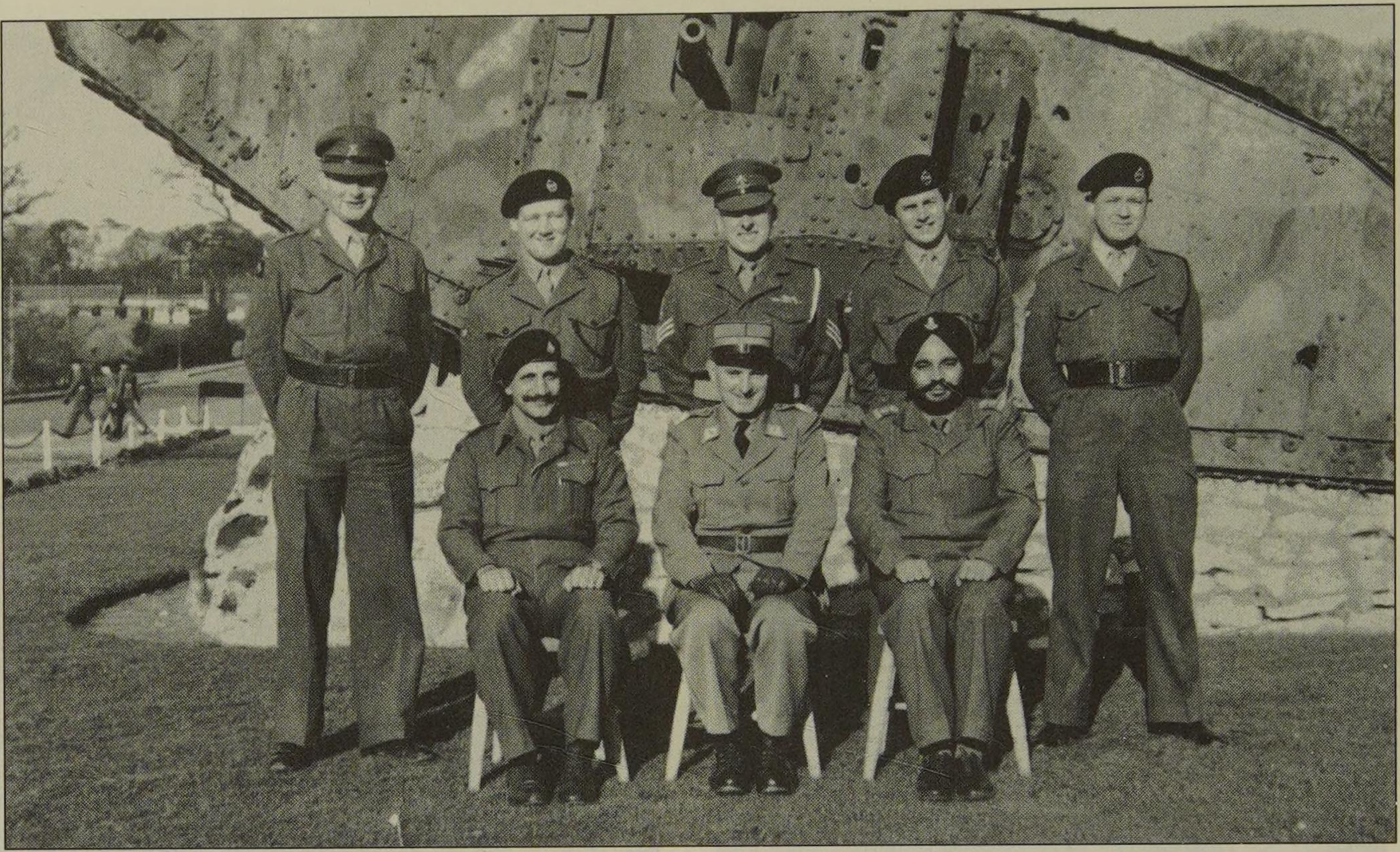




Left: Lt Col Ardeshir Burzorji Tarapore, Commandant of 17 Horse (the Poona Horse), was posthumously awarded the *Param Vir Chakra*, the Indian equivalent of the VC, during the 1965 war with Pakistan. (Indian Army) *Right*: Ardeshir Tarapore on his way to join 1 Hyderabad Lancers in the Middle East during the Second World War. (Mrs Zarine M. Boyce via Cdr S. Varma)



Capt Ardeshir Tarapore with his wife, Perin, and daughter, Zarine. (Mrs Zarine M. Boyce via Cdr S. Varma)



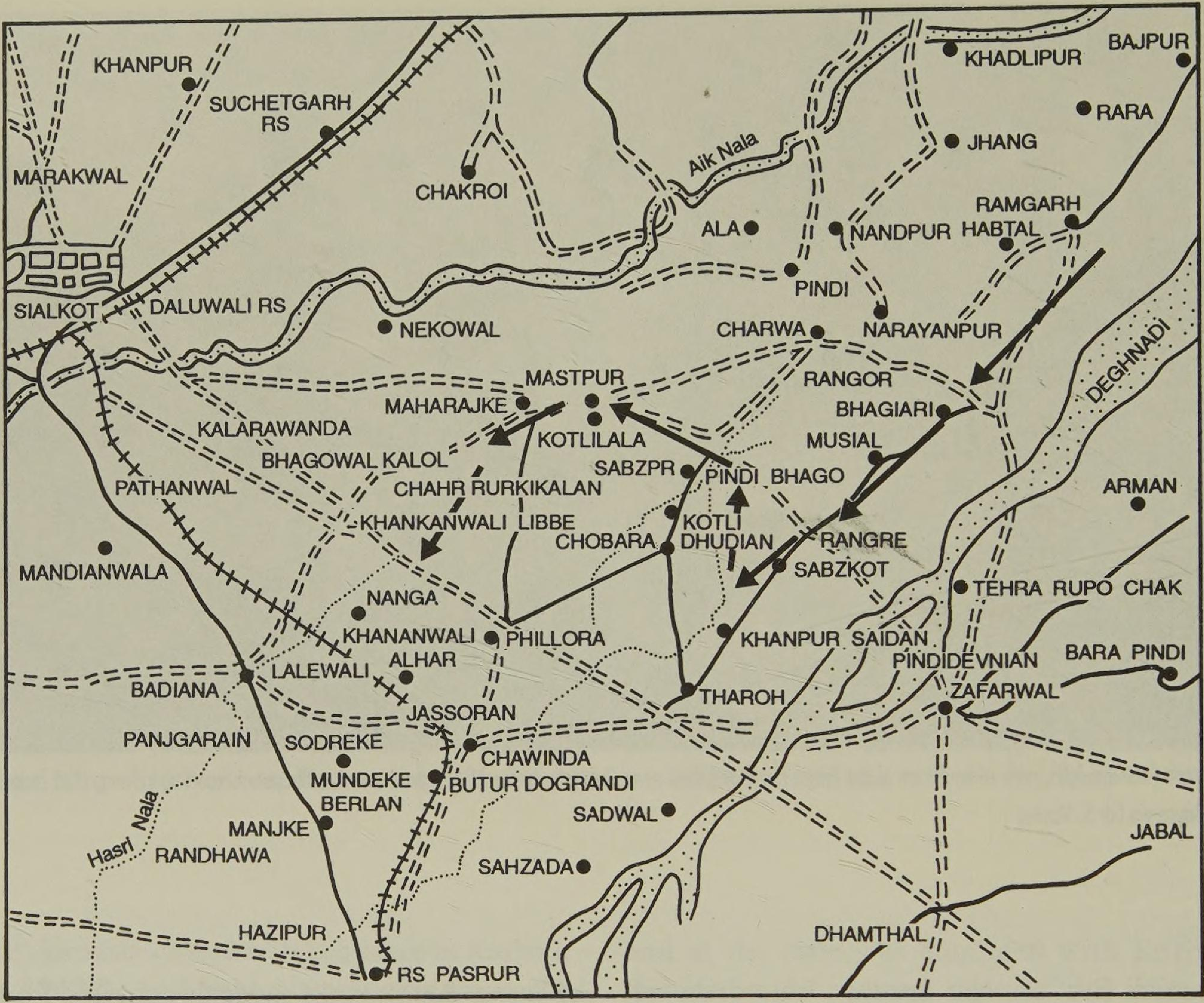
Tarapore (sitting on the left) with other officers on a Centurion course at the RAC Centre, Bovington Camp. (Mrs Zarine M. Boyce via Cdr S. Varma)

the skirmishes that had taken place in Kashmir in 1947/8. As I have already explained, the Pakistani armour, with its Patton tanks and tank crews from the more 'martial races', was considered to have the edge on India. However, when war did come in September 1965, the well-trained Indian Army was ready for action. In the western sector near Sialkot, the international boundary 'bulged' into India. This area was known as the 'Shakargarh Bulge' and presented an ever-present threat to Jammu, the railhead and winter capital of the Indian state of Jammu and Kashmir. Around this bulge the Indian I Corps was deployed, consisting of two infantry divisions and one armoured – the 1st Armoured Division – which comprised one armoured brigade, one lorried infantry brigade and one artillery brigade. The Poona Horse was one of the armoured regiments in the armoured brigade and at the time was equipped with British manufactured Centurion tanks.[1] Other units in the IAC were still equipped with vintage American-made Sherman medium tanks from the Second World War. They were faced in 1965 by I (Pakistan) Corps, which was equipped with a mixture of American manufactured armour, ranging from Second World War Shermans and M-36 tank destroyers (TD), to the more modern and relatively sophisticated M-47 and M-48 Pattons.

On 10–11 September 1965, the armoured brigade was given the task of making the main thrust to capture Phillora, which was defended by 25 Cavalry (mainly Pattons, plus some M-36 TDs) with infantry support. The Poona Horse led the assault, and true to its regimental tradition, Lt Col 'Adi' Tarapore was in the lead. As they approached Libbe, about halfway to their main objective, the enemy suddenly

Tarapore (extreme left), with other officers of the Poona Horse and their wives, just prior to the 1965 operations. Mrs Tarapore is kneeling in front. (Mrs Zarine M. Boyce via Cdr S. Varma)

opened fire on the leading squadron of Centurions at a range of about 800 m. In the ensuing engagement first three Pattons were destroyed by C Sqn, but in return two of its Centurions were damaged, then three more enemy tanks were knocked out for the loss of just one more Centurion. The enemy then withdrew before they could be cut off, while the supporting Indian infantry (5/9 Gurkhas) began to clear the village and the surrounding fields of tall standing crops, an operation which took the rest of the morning. Leaving the infantry to its task, the Poona Horse moved on towards Phillora and was soon occupying an area of high ground covering the town, having knocked out a further six enemy tanks en route. Col Tarapore now had one squadron (C) covering Phillora and a second (B) to the west at Khakanwali. Without warning, a squadron of enemy Patton tanks suddenly appeared from an unexpected direction to the south-west of Khakanwali and began to engage B Sqn, who soon lost two of its Centurions because of their exposed positions. However, the crews managed to bale out safely. The remainder of the squadron hurriedly adjusted its fire positions to cover the new threat, some tanks having to fire on the move using their gun stabilizer systems while moving in high reverse.[2] Six enemy tanks were hit during the engagement that followed, two of which 'brewed up'. The enemy again withdrew and Phillora was cleared during the afternoon by 5/9 Gurkhas. They were followed up by soldiers of the lorried infantry brigade that evening, who took over the town. In all, the Poona Horse had destroyed a total of twenty-eight enemy Pattons at a cost of nine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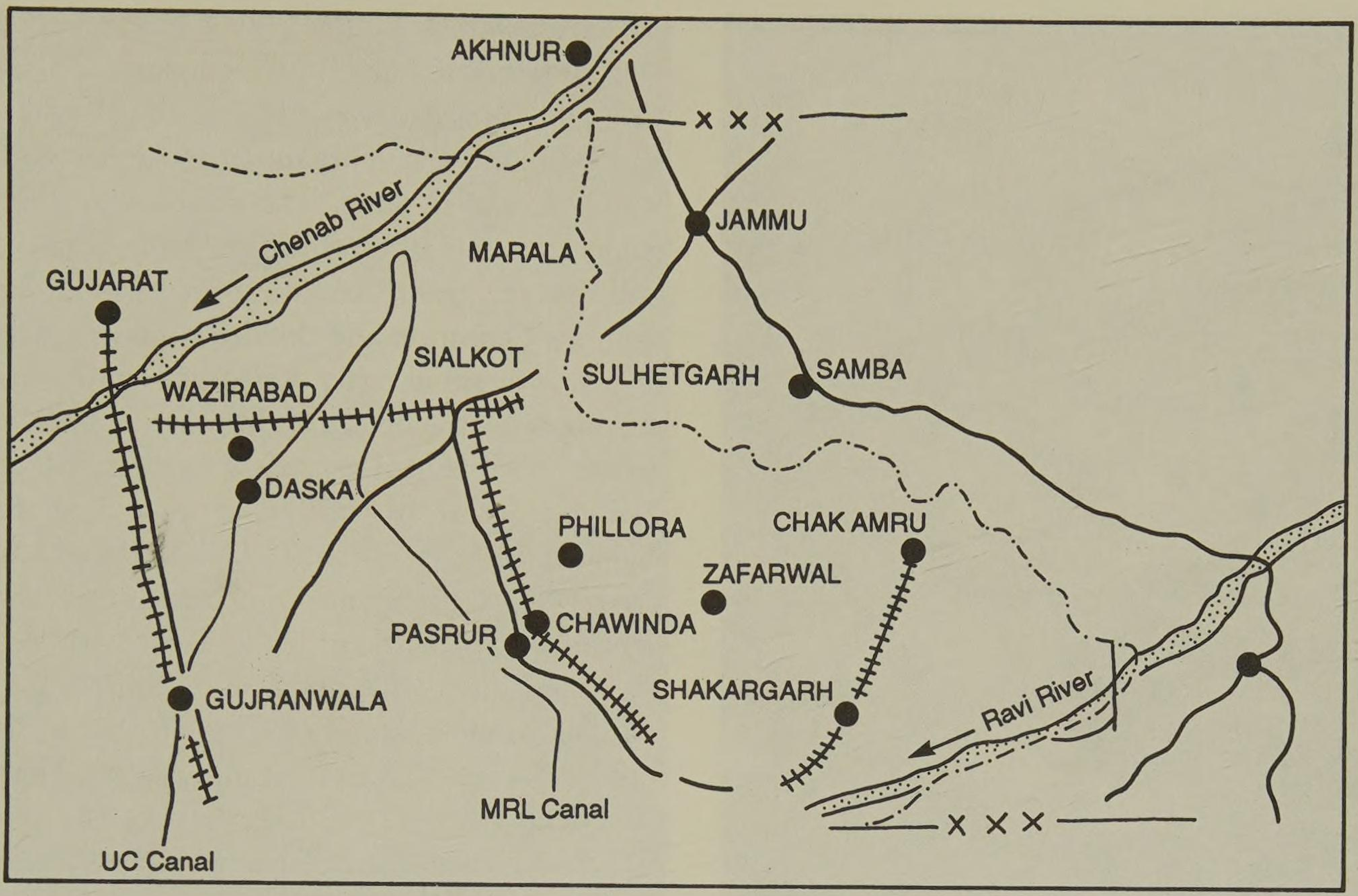
KHANANWALI
PHILLORA
KHANPUR SAIDAN
PINDIDEVNIAN
BARA PINDI
LALEWALI
ALHAR
ZAFARWAL
BADIANA
JASSORAN
THAROH
PANJGARAIN
SODREKE
CHAWINDA
MUNDEKE
BUTUR DOGRANDI
BERLAN
SADWAL
MANJKE
Hasri Nala
RANDHAWA
SAHZADA
JABAL
HAZIPUR
DHAMTHAL
RS PASRUR

The Poona Horse operations in Sialkot sector, 8–22 September 1965. Scale: ½ inch to 1 mile. (Map: M. Komarnyckyj)

Centurions. During the action, Tarapore had been injured on his right hand by a shell splinter and advised to go to the Regimental Aid Post for treatment but refused. His tank was then surprised by a Pakistani recoilless gun (RCL) mounted on a jeep,[3] yet he managed to manoeuvre his damaged tank to engage and destroy the RCL. Abandoning his immobile Centurion, he dashed across to another, ignoring the small arms fire all around him. He later engaged and damaged several enemy tanks during the rest of the battle.

The regiment harboured that night in Libbe, less C Sqn which was in Phillora with the infantry. It is said that the three squadron commanders celebrated the day's battle by opening a long-preserved bottle of Scotch whisky, which they drank lying under one of the tanks! No one had much rest that night as enemy tank hunting parties were out all night and several Pakistani RCL jeeps were destroyed. Despite his wound, Col Tarapore carried on commanding with his arm in a sling. No further action took place the next day, so the battle was thus concluded and is described by Maj Gen Gurcharn Singh Sandhu in his history of the IAC (1941–71), entitled *The Indian Armour*:



The area around Phillora. MRL is the Maraia–Ravi Link Canal; UC the Upper Chenob Canal. The map is not drawn to scale. (Map: M. Komarnyckyj)

'It had been a hard-fought tank battle with over 400 tanks engaged in slugging it out in an area of about 50 square kilometres. At the end of it Pak armour had lost over 50 tanks against about a dozen Centurions and half a dozen Shermans on the Indian side. Pak armour could offer no alibis here . . . it was Pak armour which was holding reconnoitered and selected defensive positions and Indian tanks attacked them. . . . It was a head-on encounter which lasted for most of the day and which the Centurions and their crews won hands down. It was a victory won by the technical competence and high morale of tank gunners, commanders and loaders . . . a triumph of individual grit and determination.'

The battle for Phillora may have been won, but the war was not yet over and tank battles continued until the ceasefire on 22 September. The Poona Horse, which was continually in the thick of the fighting, was destined to lose its gallant commanding officer just four days after its victory at Phillora on the 16th. That day, the regiment, with under command 8 Garhwal (infantry battalion), planned first to capture Jassoaran with B Sqn and B Company, then C Sqn would advance to the village of Buttar Dograndi, followed by the Garhwalis, who would clear and secure the final objective of Chawinda. B Sqn advanced at 0830 hrs, knocked out three enemy tanks and invested Jassoran. As preparations for the second phase were under way, the enemy brought down heavy and sustained artillery fire, killing the CO of 8 Garhwal – a direct hit on his jeep – which also destroyed tank/infantry radio communications. This naturally caused the

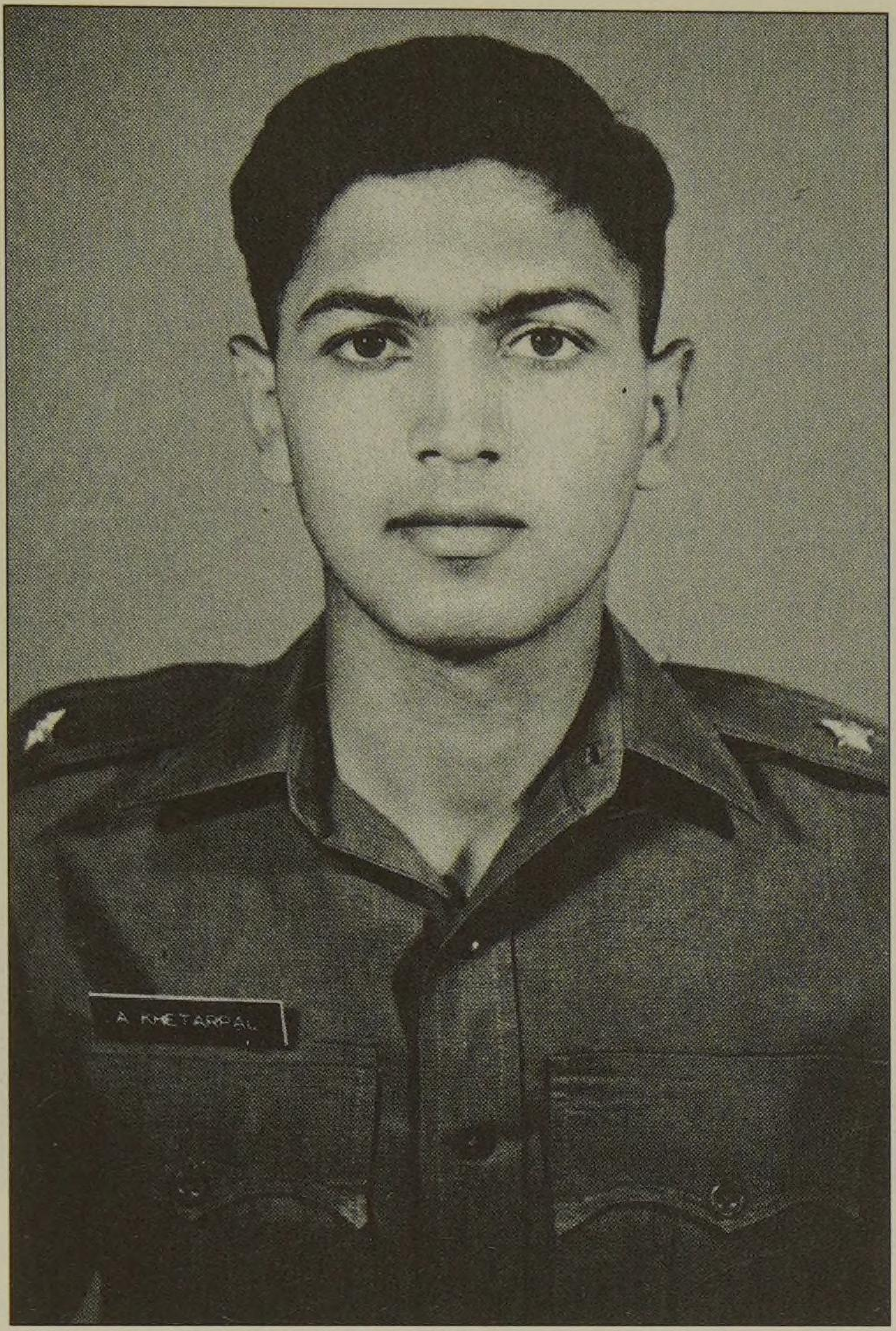
Lt Col Tarapore's ashes are brought back to Poona with all due ceremony. (Mrs Zarine M Boyce via Cdr S Varma)

Garhwalis considerable problems. Nevertheless, C Sqn forced its way through to Buttar Dograndi, destroying seven Pattons and three RCL guns en route and inflicting heavy casualties on the supporting Pakistani infantry. Col Tarapore asked Brigade HQ if he could then move up a second squadron (A) to reinforce C, which was approved and the move was completed by mid-afternoon. The Poona Horse now had its RHQ and two squadrons right in the middle of the enemy killing ground and was soon under intense fire from tanks, RCLs, anti-tank missiles and several regiments of artillery. Two of the RHQ tanks were hit, plus one from C Sqn and it was soon clear that the situation was untenable, so it was decided to withdraw to Jassoran. The move was successfully completed by about 1615 hrs.

A fresh attack by the Poona Horse Group was later launched to recapture Buttar Dograndi using the whole of 8 Garhwal, which had by then been reorganized, together with RHQ, A and C Sqns. The attack was soon going extremely well, when the enemy began to pull out yet again. Adi Tarapore dismounted from his Centurion and decided to have a mug of tea with some other RHQ officers before moving on to the objective. Just then a medium artillery shell landed very near to them, killing Tarapore instantly and fatally wounding the regimental signals officer. Lt Col Tarapore had personally led his regiment into the thick of the fighting for the battle of Phillora. He had been wounded but had carried on commanding, with his arm in a sling. In the ensuing battles he had led his tanks twice right into the middle of the enemy's killing ground, defying all their efforts to prevent the Indians from outflanking the objective. During this period of six days, the regiment, inspired by his leadership, had destroyed sixty enemy tanks for the loss of only nine of their Centurions. For his peerless leadership, gallantry and determination, Lt Col A.B. Tarapore was posthumously awarded the *Param Vir Chakra*, the country's highest award for gallantry. This was in itself remarkable as the PVC is normally associated with a single act of bravery, rather than a display of sustained courage as in this case. His citation closes with the words: 'The valour displayed by Lt Col Ardeshir Burzorji Tarapore in this heroic action which lasted six days, was in keeping with the highest traditions of the Indian Army.' Col Tarapore was cremated in the field and his ashes were ceremonially brought back to his home town of Poona.

2ND LT A. KHETARPAL

The second PVC awarded to Poona Horse was won six years later, during the so-called 'Lightning War' of 1971, at the battle of Basantar River on 16 December, by young



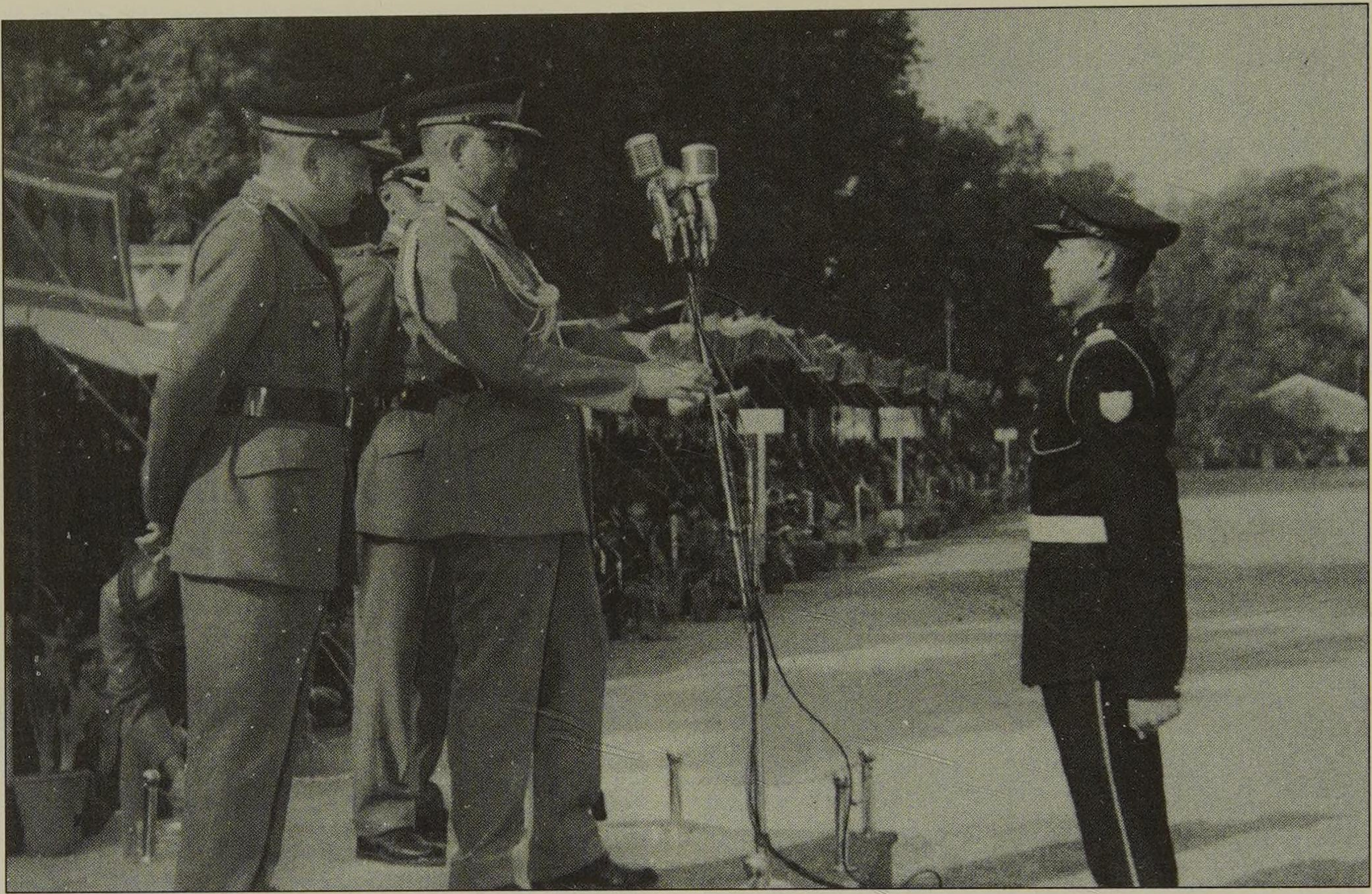
Shillong
1957

Left: The brave young 2nd Lt Arun Khetarpal, also of the Poona Horse, was posthumously awarded the *Param Vir Chakra* for his heroism on 16 December 1971, at the battle of Basantar River. (Brig Khetarpal via Cdr S. Varma) *Right*: Arun Khetarpal at school in Shillong in 1957. (Brig Khetarpal via Cdr S. Varma)

2nd Lt Arun Khetarpal, who was posthumously awarded the medal for his amazing spontaneous bravery. At the time, Arun had only about six months' Army service and had not yet even attended the normal armour course for young officers.

Born on 11 October 1950, Arun Khetarpal belonged to a fourth generation Indian Army family, whose great-grandfather, grandfather and father had all served before him. His father was a retired brigadier of the Corps of Engineers, who had fought against the Japanese in Burma and Malaya. Arun went to one of the oldest public schools in India, the well-known Lawrence School at Sanawar in the Simla hills, which had been founded in 1847. The school was, and still is steeped in the traditional values of character building and team spirit, both so essential for anyone destined for a career in the armed forces. Arun excelled at school and was selected to join the thirty-eighth course at the National Defence Academy (NDA), the brainchild of the late Field Marshal Sir Claude Auchinleck, when he was C-in-C India, where for three years the cadets of all three Services are trained together. He passed out as a senior cadet captain – in the presence of both his father and grandfather – his squadron winning the best squadron trophy. Keen on outdoor pursuits, he excelled in riding and cross-country running. He was also an avid golfer.

After his commissioning in 1971 from the



2nd Lt Khetarpal reports to the Chief of Army Staff, Gen Bewoor, during his passing out parade at IMA, Dehradun. (Brig Khetarpal via Cdr S. Varma)

Royal Indian Military Academy (IMA), where he was a senior under officer, he was selected for the Poona Horse, one of the most prestigious armoured regiments in the Indian Army, with the highest number of battle honours. At the time, the regiment was under the command of Lt Col Hanut Singh MVC (he would go on to become a lieutenant general). The regiment required Khetarpal to attend a 'Special to Arm' Young Officers Course, but agreed to postpone it for the duration of hostilities – a remarkable exception for one so young. 2nd Lt Arun Khetarpal was thus a troop commander when his Centurion-equipped regiment was sent into action in the Shakargarh area of the western front, facing Pakistan.

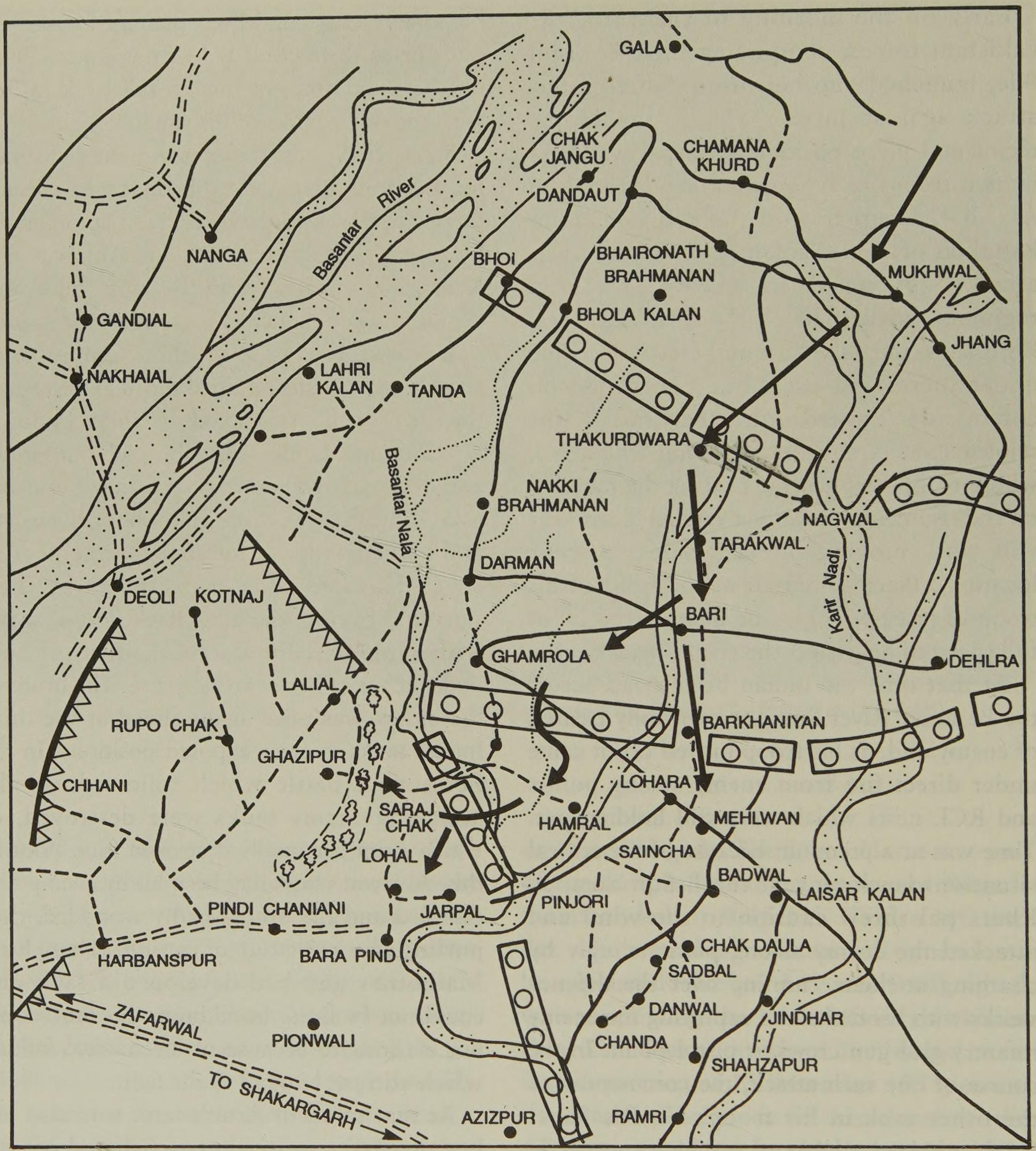
As in 1965, the 'Shakargarh Bulge' was defended by I Indian Corps, this time comprising three infantry divisions and one armoured brigade. The Poona Horse was part of the 16th Independent Armoured Brigade (commanded by Brig A.S. Vaidya MC and Bar, who would later rise to full general and be appointed Chief of the Army Staff), which was supporting the 54th Infantry Division (Maj Gen Pinto), north of the 'Bulge' area. On the evening of 15 December 1971, one of the infantry brigades of this division (the 47th) managed to establish a bridgehead across the Basantar River, but it was heavily counter-attacked by Pakistan armour, supported by PAF aircraft. As a result, 47 Inf Bde asked for armoured and artillery support to halt the enemy. Realizing how dangerous the situation was, Poona Horse crossed the river without waiting for a 1,000 m minefield to be cleared and entered the bridgehead area.

Early on the morning of the 16th, the Pakistani forces, comprising their 8 Armd Bde, launched another armoured counter-attack against Jarpal. The Poona Horse regimental pivot position at Jarpal was held by two troops of B Sqn, commanded by Maj A.S. Bal, together with the 3rd Grenadier Battalion of lorried infantry. This pivot was attacked by an entire enemy armoured regiment, identified as the 13th Lancers. B Sqn was heavily outnumbered and came under increasing pressure. The squadron commander asked on the radio for reinforcements and 2nd Lt Arun Khetarpal, whose troop was nearby, hearing the message on the regimental radio net replied 'I am near you and moving immediately to your location.' Placing himself at the head of his troop of just two tanks, he then moved off at full speed to help meet the enemy attack.

At that time the Indian bridgehead across the Basantar River had not been fully cleared of enemy and, as his troop moved off, it came under direct fire from enemy strong points and RCL nests which were still holding out. Time was at a premium because of the critical situation developing in the B Sqn area, so Khetarpal threw caution to the wind and attacked the enemy strong points simply by charging at them, running over the defence works with his tanks and capturing the enemy infantry and gun crews at pistol point. In the course of one such attack, the commander of the other tank in his troop, Nb Ris Sagat Singh, received a burst of machine-gun fire in his face, killing him instantly. Arun was now alone but, undeterred by this or by the enemy, he continued his attacks until all the enemy opposition had been overcome and he was able to break through and reach B Sqn. He was just in time to see the enemy tanks pulling back from their initial probing attacks. However, he was so carried away by the wild enthusiasm of battle that he started chasing the enemy tanks and even managed to knock out one of them. Maj Bal then contacted him on the radio and got him to fall back in line with the other tanks of his squadron.

Soon afterwards, the enemy tanks re-formed for a second attack and this time they selected the sector that held the three tanks commanded by Capt V. Malhotra, 2nd Lts Ahlawat and Khetarpal, which were in the most vulnerable position. They launched a complete armoured squadron of Pattons at the three Centurions in order to try to effect a breakthrough. However, the three officers stayed in their exposed locations and calmly started to pick out targets and to destroy them one by one. Soon the assaulting Pattons came to a shuddering halt and turned around, looking for the nearest cover. However, they were rallied by their squadron commander and attacked once again, with support from a second squadron and under cover of heavy artillery fire. The brunt of the attack was once again aimed at the three Indian tanks in their exposed positions. In the fierce tank battle which followed, all the attacking enemy tanks were destroyed, of which Arun personally destroyed four. Prior to this, Ahlawat's tank had been hit by enemy fire, disabled and the officer badly wounded, thus putting the tank out of action. Then Ravi Malhotra's gun had developed a fault and could not be fired. In addition, his tank could not manoeuvre because of mechanical failure, which also put him out of the fight.

At that moment Arun's tank was also hit, but the first enemy shot ricocheted off the Centurion's thick armour. Then a second round struck the young officer's Centurion and it immediately burst into flames. Capt Malhotra saw this happening and ordered Arun to bale out. However, Arun realized that if he did so there would be nothing to stop the enemy from breaking through. Therefore, despite the fact that he was wounded and his tank was burning furiously, he sent a transmission that has now


GALA
CHAK JANGU
CHAMANA KHURD
DANDAUT
Basantar River
NANGA
BHOI
BHAIRONATH
BRAHMANAN
MUKHWAL
BHOLA KALAN
JHANG
GANDIAL
NAKHAIAL
LAHRI KALAN
TANDA
THAKURDWARA
Basantar Nala
NAKKI BRAHMANAN
NAGWAL
TARAKWAL
DARMAN
DEOLI
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BARI
Karir Nadi
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RUPO CHAK
BARKHANIYAN
GHAZIPUR
CHHANI
LOHARA
SARAJ CHAK
HAMRAL
MEHLWAN
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LOHAL
BADWAL
LAISAR KALAN
JARPAL
PINJORI
PINDI CHANIANI
CHAK DAULA
HARBANSPUR
BARA PIND
SADBAL
ZAFARWAL
DANWAL
JINDHAR
PIONWALI
CHANDA
SHAHZAPUR
TO SHAKARGARH
AZIZPUR
RAMRI

Poona Horse area of operation, 1971. Scale: 1 inch to 1 mile. (Map: M. Komarnyckyj)

become a part of Poona Horse regimental history. 'No sir,' he said. 'I will not abandon my tank: my gun is still working and I will get these bastards!' With that he calmly set about destroying the remaining enemy tanks. The last one was barely 75 m from him when he finally managed to destroy it. At that moment Arun's tank was hit yet again, this time on the turret, the round entering through the pistol port. The loader/operator was killed, Khetarpal was

An Indian Centurion kicks up clouds of thick dust as it manoeuvres near the Indo–West Pakistan border during the 1971 war. (Simon Dunstan)

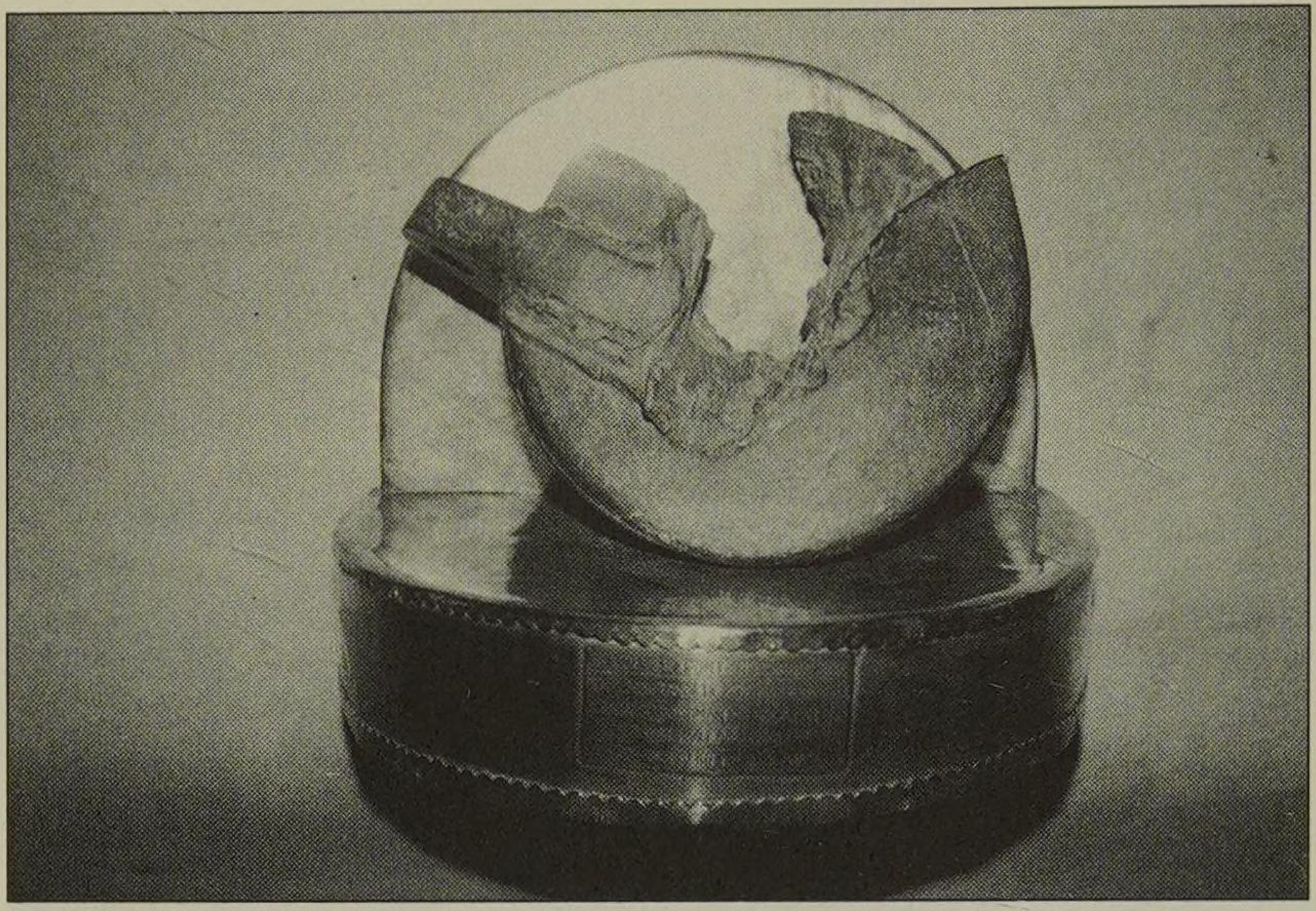
mortally wounded, and his gunner was also badly hurt. The driver opened his hatch, got out, climbed onto the turret and removed the wounded gunner onto another tank which had drawn up alongside to assist in saving the crew. While doing so, he was hit by a burst of machine-gun fire in his leg. Disregarding the wound, he got back into his Centurion, reversed the still burning tank behind cover and then put out the fire. With the help of other crewmen, he began to pull his commander out of the turret. However, the young officer collapsed and died while this was taking place.

2nd Lt Arun Khetarpal was dead, but by his intrepid action he had saved the day. The enemy breakthrough was halted – not a single Pakistani tank got through. The citation for the posthumous award of the *Param Vir Chakra* contained these words: '2Lt Arun Khetarpal had shown the best qualities of leadership, tenacity of purpose and a will to close in with the enemy. His was an act of courage and self-sacrifice far beyond the call of duty.'

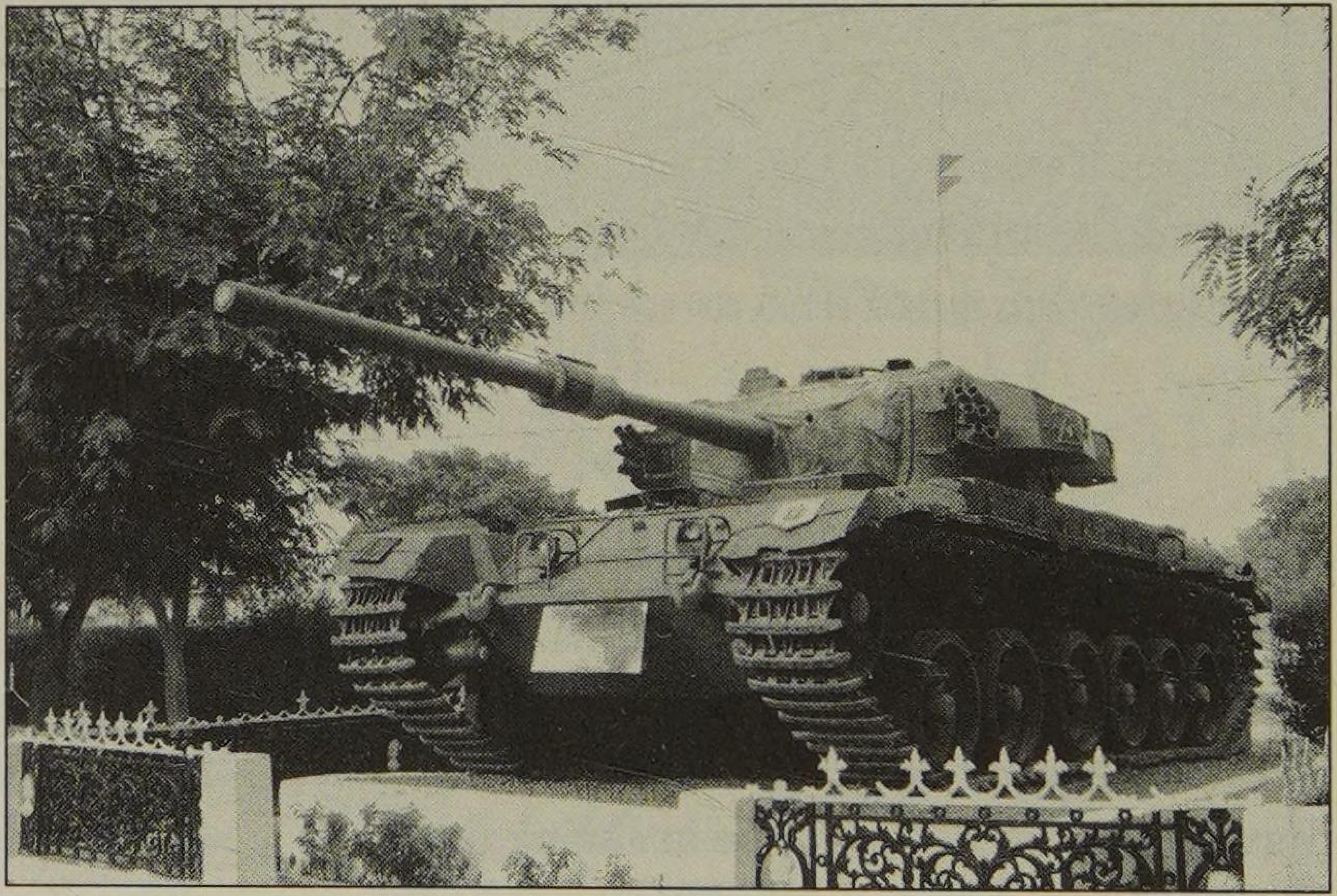
Although Arun died when he was only twenty-one, and is thus the youngest PVC award winner in the Indian Army so far, he showed maturity beyond his years. The Battle of Basantar has gone down in history as the biggest tank battle ever fought by the Indian Army. Many other posthumous honours were bestowed upon him, including the naming of an Indian supertanker, SS *Lieutenant Arun Khetarpal PVC*.

MAJ GEN K.Z. SINGH, AN ARMOURED COMMANDER OF GREAT ABILITY

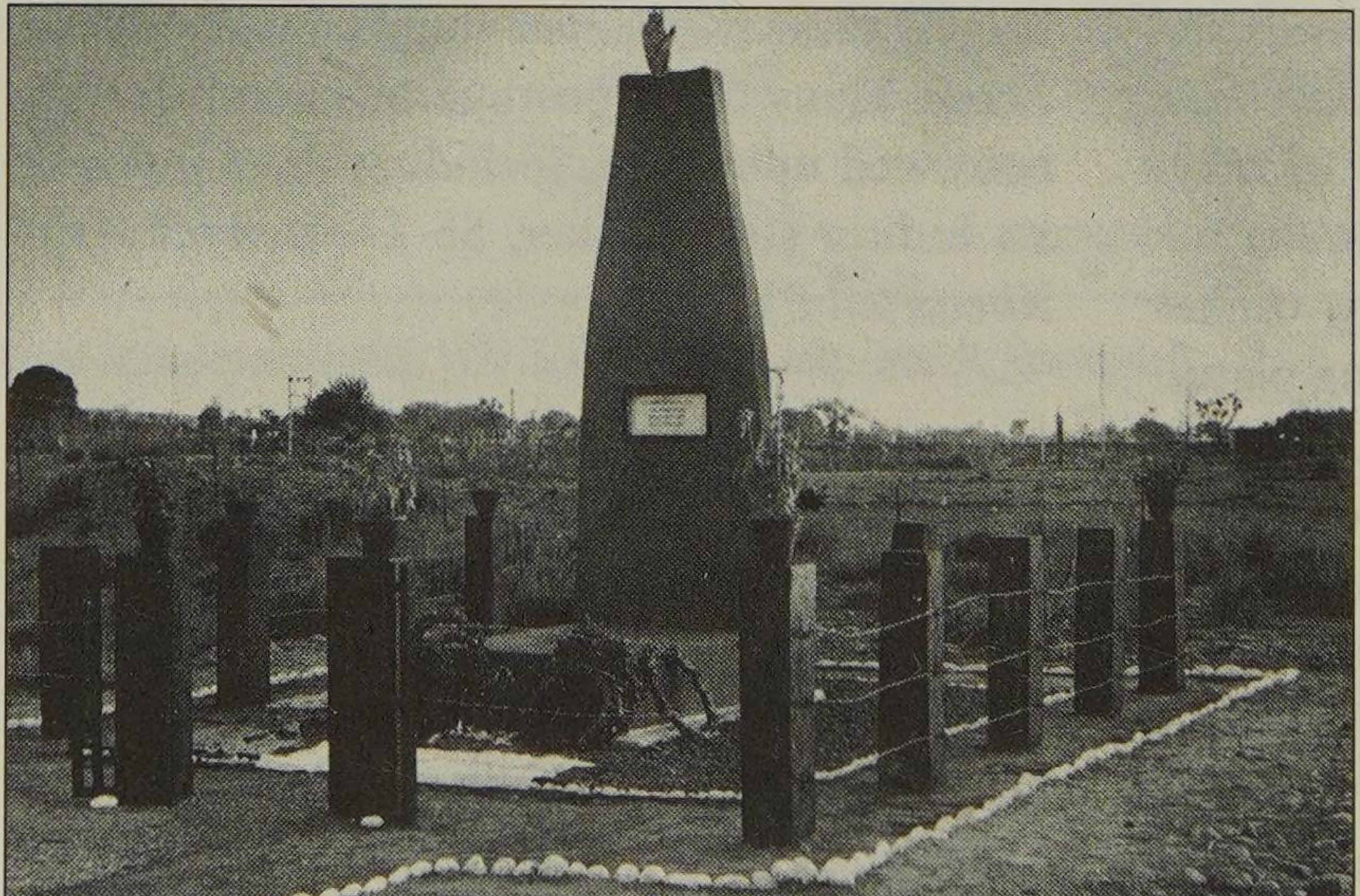
For the next account from the Indo–Pakistan conflicts I am indebted to Maj Johnny Evans, Hon Sec of the Central India Horse Association UK, who wrote to me about this famous commandant of his regiment.



Khetarpal's tank pistol port, showing where the fatal shot passed through it. (Poona Horse via Cdr S. Varma)



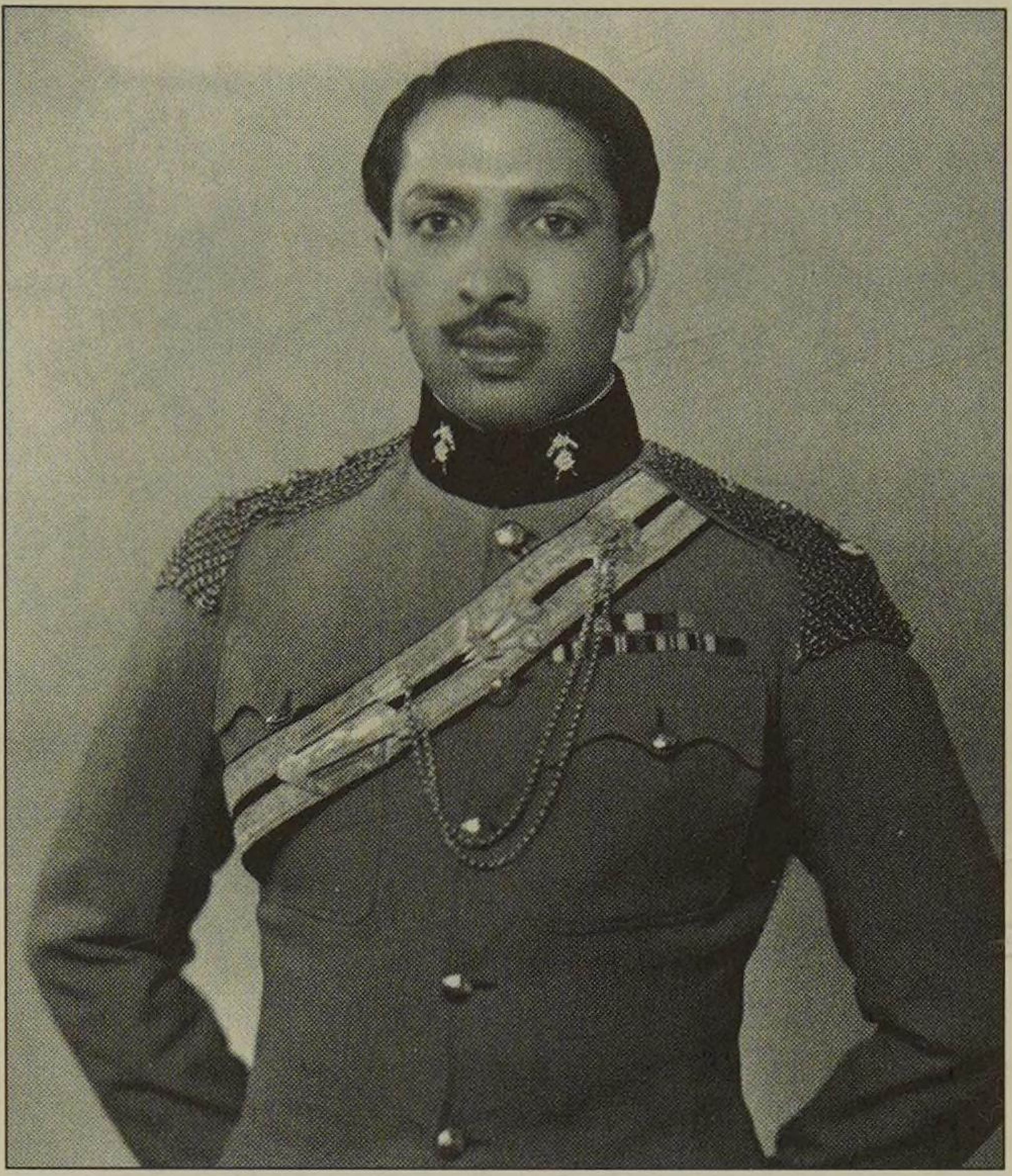
Khetarpal's Centurion tank preserved by the Poona Horse as a memorial. (Poona Horse via Cdr S. Varma)



Khetarpal's memorial near Samba, in the Jammu region. (Poona Horse via Cdr S. Varma)

Known to many as Zoru, George or Zorawar, K. Sorawar Singh was born in Jaipur in 1920, the son of Maj Gen Bhairon Singh, an officer in the Jaipur State who was well known for his dashing character and famous among other things for being a nine handicap polo player. Zorawar was educated at the famous Royal Indian Military College and in due course entered the IMA at Dehradun where he was an outstanding cadet, earning the Sword of Honour. Commissioned into the 16th Light Cavalry in 1941, his desire to be involved in action against the enemy led to his transfer in 1944 to the Central India Horse (CIH), which was then operating in Italy where he became 2IC of B Sqn under Maj (later Lt Col) Gordon Laverick. By 5 April 1944, after a period of intensive training in the south of Italy, the CIH was in contact with the Germans on the Lanciano front, just north of the River Sangro and about 20 miles inland from the Adriatic coast. Zorawar's thirst for action was soon met and, on 3 August, he led a combined patrol of men from his own squadron and from B Sqn, commanded by Maj Ronnie Jennings-Peterson, to Casale Vecchia, north-west of Arezzo, where the patrol became engaged in a firefight with an enemy patrol, two of whom were killed and three taken prisoner. As a result of his dashing leadership, Zorawar was awarded a Military Cross.

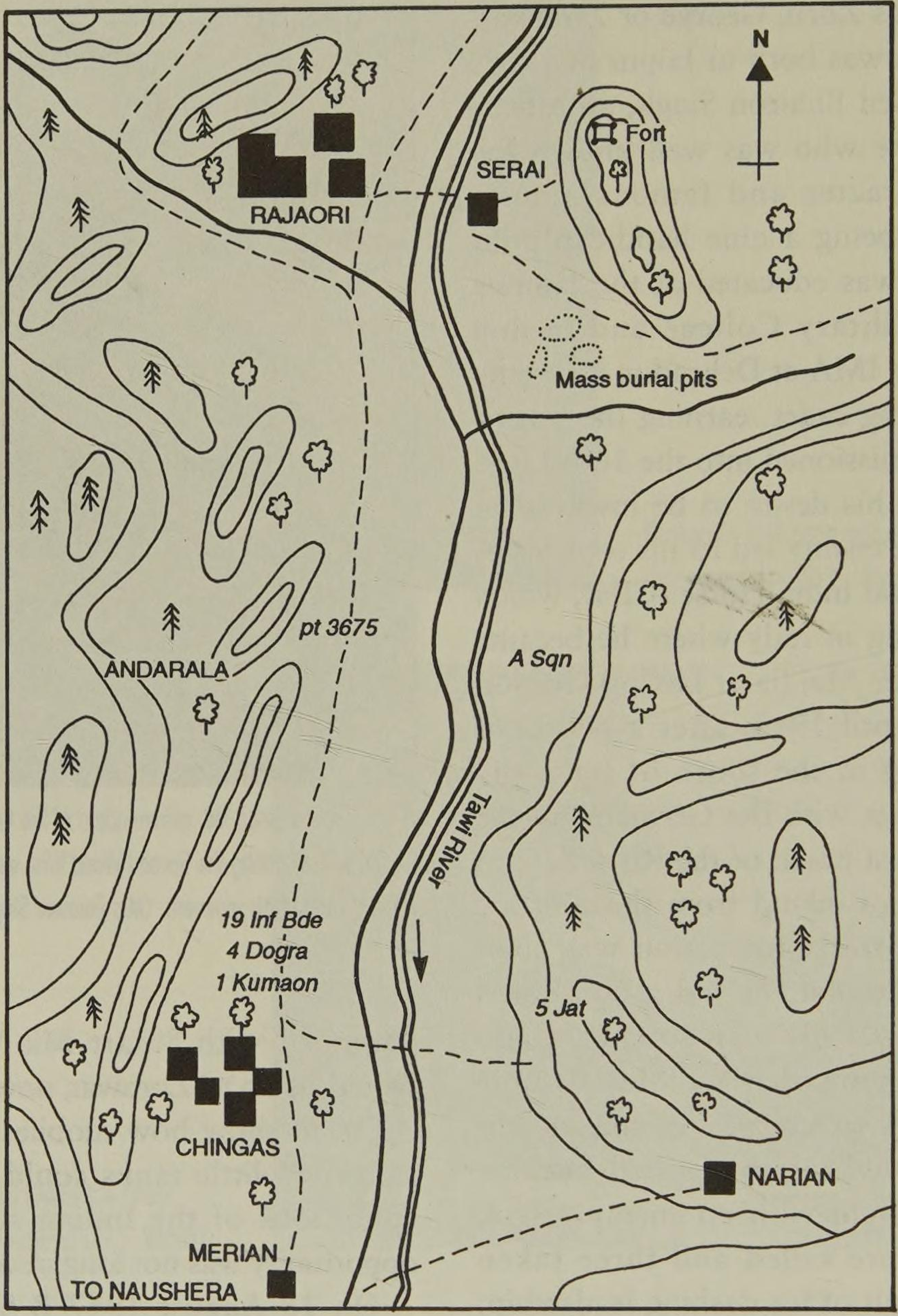
By the end of October, the CIH had been withdrawn from the Italian campaign and, having been on active service since 1940 in the Western Desert, North Africa, Eritrea, Persia and Italy, was on its way to yet another country – Greece. It was here in Salonika that Zorawar made another – more peaceful – conquest, meeting and falling in love with Maria Trichipoulous, a beautiful and talented Greek lady who later became his wife. The CIH returned to India in February 1946 and, after some well-earned leave, re-assembled at Ahmednagar in west central India to be re-equipped with Stuart Mk VI light tanks. It would be up to Zorawar, now the commandant (CO), to show how mobile and flexible these well-tried little tanks could be in the testing conditions of the Indian sub-continent; his opportunity was not long in coming.



Lt Col Zorawar Singh MC, commandant of the Central India Horse, who won his MC in Italy during the Second World War, was the youngest ever commandant of his regiment. (Mrs Zorawar Singh via Maj J. Evans)

On 18 August 1947 B Sqn, CIH, moved out of Ahmednagar en route to Jullundur in northern India, a journey of 1,100 miles which was covered in seven days in heavy monsoon conditions. The tanks moved by rail, the road party in wheeled vehicles. The level of mob violence which it encountered indicated that the squadron was right in the middle of the Punjab disturbances, its role being to quell riots and to protect columns of refugees and Hindu villages from mobs ranging from 5,000 to 10,000 strong.

By April 1948 the regiment was concentrated in the Naushera region under the 19th Infantry Brigade, responsible for all


N
Fort
SERAI
RAJAORI
Mass burial pits
pt 3675
ANDARALA
A Sqn
Tawi River
19 Inf Bde
4 Dogra
1 Kumaon
5 Jat
CHINGAS
NARIAN
MERIAN
TO NAUSHERA

The advance to and capture of Rajaori. Not to scale; the distance between Chingas and Rajaori is 14 miles. (Map: M. Komarnyckyj)

operational commitments in the Jammu area, including Poonch. It was here, during the advance to and capture of Rajaori, an important place held by strong Pakistani forces, that the extraordinary ability of Zorawar as a dashing cavalry commander came to the fore. Some 28 miles of wild rugged terrain connected Naushera with Rajaori, climbing from a hot, dry plain about 1,500 ft above sea-level, to a height of over 5,000 ft, in beautiful natural surroundings. The fair weather road followed the old Moghul route through Naushera and Rajaori across Pir Panjal to Srinagar passing Nandpur South, Barwali Ridge, Merian and Chingas. Most places en route still had old Mogul *serais* (resting places/campsites), mostly in ruins. From Naushera to Merian the road passed through a stretch of very difficult, rugged hilly terrain with many defiles. From Merian onwards it generally followed the western bank of the Manawar Tawi river through cliffs and spurs of varying height, some with a drop of 500 ft to the river below. The Nandpur South–Barwali Ridge complex was a bottleneck of some military significance. It was dominated by the steep, rocky Barwali Ridge from the north, the Kot Hill feature to the east and Nandpur Hill to the west. At Nandpur there was a small open space, about 250 × 150 yd in size, with terraced fields, a few derelict houses and a Mogul *serai*. Just ahead of Nandpur was the Manawar Tawi river bend, with a large pool 4 to 8 ft deep and dominated by the Barwali Ridge. The river bend was joined by a deep nullah which emerged from a gorge to the west. The Nandpur area was mined and effectively covered by the enemy. This was the only place which was available for the deployment of tanks, where fire could be brought to bear on the Barwali Ridge.

The Nadpur–Chingas–Rajaori road had been badly damaged by the enemy and had remained unrepaired during the period 1946–8. All culverts had been destroyed and many large boulders and felled pine trees had been laid across to form road blocks, which, in addition, were mined. The cliffs and defiles closer to the river had been deliberately cut and the road was non-existent in several places. Lt Col Zorawar Singh flew over the area during the planning stage of the operation and assessed the damage as 'frightening', reporting that it would require an immense effort in time and labour to make the road usable as an axis of advance. The magnitude of the damage can be judged from the remarks of a senior engineer officer, who also flew over the area: 'Anyone who is thinking of advancing with tanks to Rajaori is, in my opinion, taking a great risk!' It was indeed a great risk, but one which, in true cavalry spirit, Zorawar accepted. The 19th Infantry Brigade plan for the operation was divided into three phases: first, to capture the Barwali Ridge; second, to advance and capture Chingas; finally, to advance and capture Rajaori.

During the night of 7/8 April, the feature to the east and the Nandpur feature to the west were captured and secured by the brigade. A Sqn, CIH, under Maj Karam Singh, with two tanks of RHQ, one of which was the commandant's, plus a troop from B Sqn, advanced from a place near Naushera, about 5 miles from the objective, and had taken up position in Nandpur South by 0630 hrs on the morning of the 8th. At 0800 hrs, 4 Dogra Regt, commanded by Maj Sansar Chand, himself a Dogra from the Jammu region, debouched from its forming up place and started advancing towards the objective on the east flank of A Sqn's deployment area. The assault was with two companies up, the left-hand company's objective being the Barwali Top and the right-hand company's objective, the east spur. On approaching the river bend both the leading companies came under very heavy fire. The right-hand company was pinned down. Some tanks had to manoeuvre within a mine-strewn area in order to reposition themselves so that they could effectively engage the enemy machine-gun positions which had checked the advance. Although the area had been carefully searched during the previous night some mines remained hidden in the thick undergrowth and undulating ground. As the tanks were in the process of redeploying, the enemy opened up with heavy and well-aimed machine-gun fire, small arms and mortars, which forced the crews to close down thus making movement even more difficult. Some tanks avoided mines only by inches, Zorowar's among them. That disaster was averted was down to the courage and skill of Lance Daffadar Varyam Singh, a young and fearless jawan and seasoned despatch rider of the Second World War who was now the commandant's hull gunner, and Acting Lance

Daffadar Sita Ram, his driver. Ram, with great presence of mind, managed to halt the tank when it was almost upon a cluster of mines concealed beneath a stone slab. Varyam Singh, on his own initiative, dismounted and guided the two RHQ tanks safely to their positions thus undoubtedly saving both light tanks and the lives of Zorawar and the crew members. For this gallantry and his utter disregard for his own safety he was awarded the *Vir Chakra*, a newly instituted award, roughly equivalent to the British Military Cross, but not restricted to officers.

Meanwhile, the left-hand company, after crossing the river, had started to climb the steep rocky ridge and was joined by the remainder of the battalion which had already suffered casualties. Capt Arvid Nilkhanth Jatar had volunteered to accompany the leading company of 4 Dogra to act as forward tank observation officer and, with his radio, proceeded to give directions which enabled A Sqn tanks to pick up and effectively engage enemy machine-gun positions. This close supporting tank fire continued for four and a half hours and was only made possible because the crews were able to replenish their ammunition from specially prepared forward ammunition points, which Zorawar had earlier ordered to be established in anticipation of such action. His foresight and imagination that tank guns could be used in what amounted to an artillery role was but one example of his outstanding ability as a tank commander. The sight of sixteen Honey tanks blazing away non-stop with their guns, blasting the ridge along its full length and breadth, was most dramatic. It is to the credit of the tank crews, their efficient training and the skilled maintenance of their equipment, as well as to the high quality of the tanks themselves, that even after over 2,000 main tank gun shells and several thousand rounds of .30 Browning ammunition had been fired at a high and sustained rate not once did a single weapon fail to fire at any time.

At about 1730 hrs on that day the enemy staged a counter-attack from the west and attempted to encircle 4 Dogra Company on the ridge top, nearly ambushing the brigade commander and his recce party who were ascending the ridge. With great foresight, Zorawar had ordered his tank crews to locate and train their guns on likely targets in anticipation of such a counter-attack. As a result, the enemy broke off the engagement after suffering heavy casualties and Phase 1 of the Rajaori Operation was successfully accomplished. Zorawar was the first to commend the bravery of the Dogra Battalion and of 2nd Lt R.R. Rane of 37 Assault Company, Bombay Engineers, who was under command of A Sqn, and who had worked night and day to remove mines, blast road blocks and make detours for the armour with great courage and scant regard for his own safety.

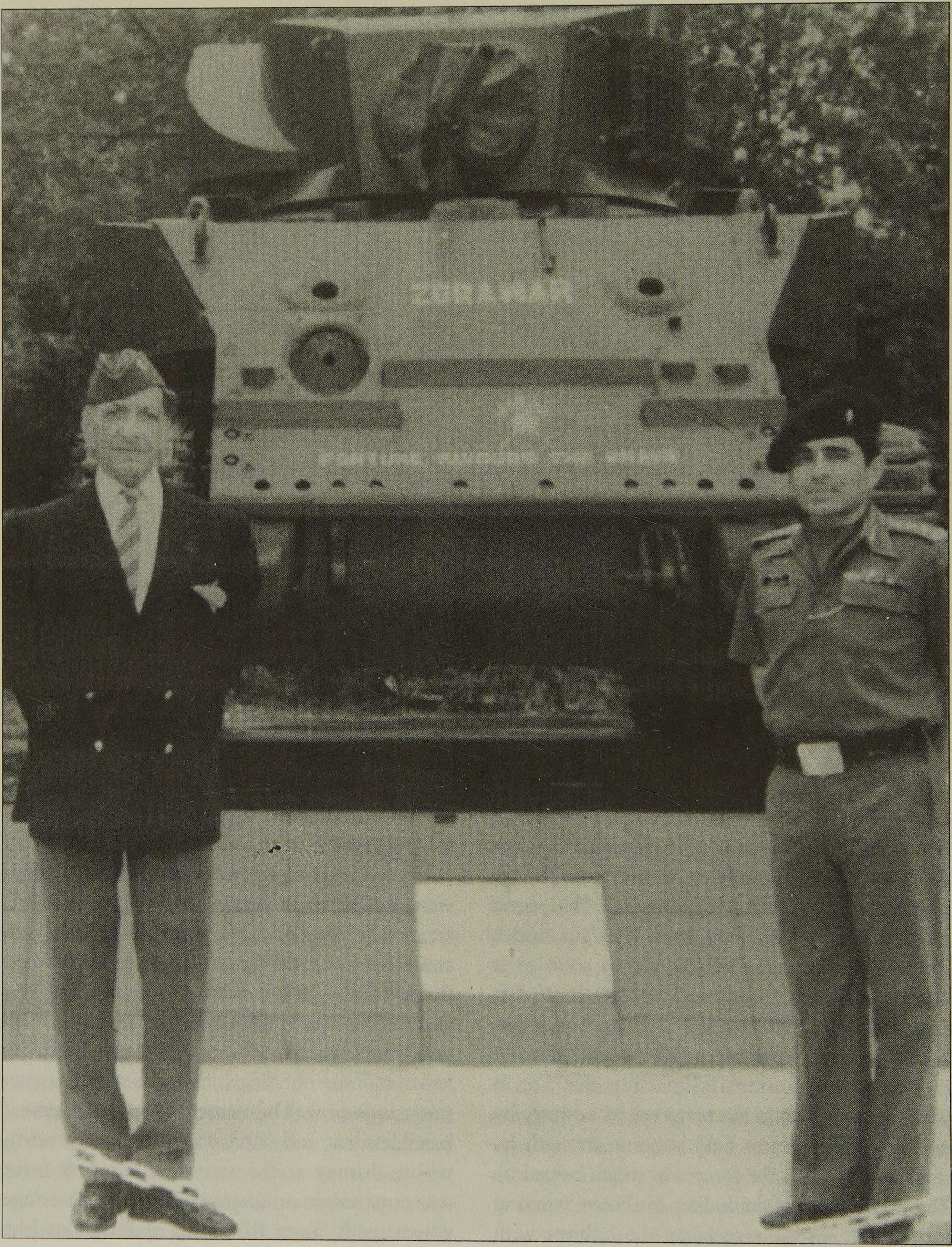
On the morning of 10 April Zorawar decided to exploit the river itself as an axis for further advance and personally reconnoitred the watercourse, wading many times across the 3–4 ft deep, icy cold, boulder-strewn, swift flowing water, until he had located sufficient suitable crossing places for the tanks. The width of the Tawi gorge near Merian was about 200 yd, gradually reducing to 100 yd at Rajaori. The river itself was some 40–50 ft wide. The only crossing places were all near deep pools and were dominated by high hill ranges running parallel on both sides. However, by 1000 hrs on that morning A Sqn tanks, after crossing the river twice, had outflanked Chingas to the east and with their support the engineers had opened the road through to Chingas for light vehicles.

Speed and the careful passage of the Tawi river axis were the essential priorities in Zorawar's plan for the remainder of the advance and, with this in mind, a task force was formed, self-

Col Zorawar Singh issuing orders for the next day's battle on 13 April 1948, during his regiment's daring advance to capture Rajaori. (Mrs Zorawar Singh via Maj J. Evans)

contained for forty-eight hours, under his command and consisting of A Sqn plus the two RHQ tanks. B Company, 1 Kamaon Rifles, under command of Maj Bisht, at that time occupying a hill feature, was also put under Zorawar's command to join up as soon as it could vacate its position. The task force left Chingas at 1130 hrs led by the squadron commander, Maj Karam Singh, and despite coming under mortar and machine-gun fire, it was able to maintain the tempo of its advance by engaging hill features held in some strength by the enemy. In this the force was much helped by Tempest aircraft of the Indian Air Force, working in pairs to engage targets on the hilltops with cannon and rocket fire which were indicated to them by HE tank gunfire. In addition, they were able to keep the task force informed about enemy activity in the Rajaori area.

After a gruelling six-hour tank drive covering some 14 miles, in which the tanks crossed the river no less than eight times in varying conditions and depths, the task force reached Rajaori at 1730 hrs. Immediately intense and accurate fire from the tanks was directed at all important targets, including Rajaori Fort, the town and surrounding hills from where enemy fire was coming. The element of surprise created bewilderment and confusion among the enemy, whose dismay at the arrival of the task force was apparent in an intercepted wireless message which read: 'Tawi River full of Buffaloes [the code name for tanks] from Chingas to Rajaori. Impossible to hold Rajaori.' The news of the


ZORAWAR
FORTUNE FAVOURS THE BRAVE

This Stuart light tank, now located at the War Museum in Rajaori, was the command tank in which Lt Col Zorawar Singh led the savage attack to recapture the town on 13 April 1948. It bears both his name and motto (*Fortune Favours the Brave*). (Mrs Zorawar Singh via Maj J. Evans) successful arrival was signalled back to the brigade, and at first could not be believed and had to be repeated.

At the age of twenty-seven, the youngest ever commandant of the regiment, Lt Col Zorawar Singh's brilliant command of armour and his daring use of the Tawi river as the axis of his advance must rate as one of the outstanding light tank exploits of all time and truly makes him deserve the accolade of 'tank ace'. Zorawar's tenure of command was short and at the end of 1948 he was selected to attend the Command and Staff Course at Fort Leavenworth, USA. From there he was appointed to the staff of the Defence Services College at Wellington, where he served for three years until being appointed to command the Tactical Wing of the Armoured Corps Centre and School at Ahmednagar. His next move, as a brigadier, was to be Military Attaché in Paris where he was also accredited to Belgium and Holland. Thereafter he held several important staff appointments before retiring as a major general at the age of forty-nine. He then became Colonel of the CIH, a position he held with high honour from 1961 to 1971. Zorawar, handsome, bold and brave, was loved and admired by his subordinates as well as his seniors. He was, in short, a true cavalry officer and, as such a role model for all to emulate.

Maj Gen Zorawar Singh MC, while commandant of the IMA, Dehradun. (Mrs Zorawar Singh via Maj J. Evans)

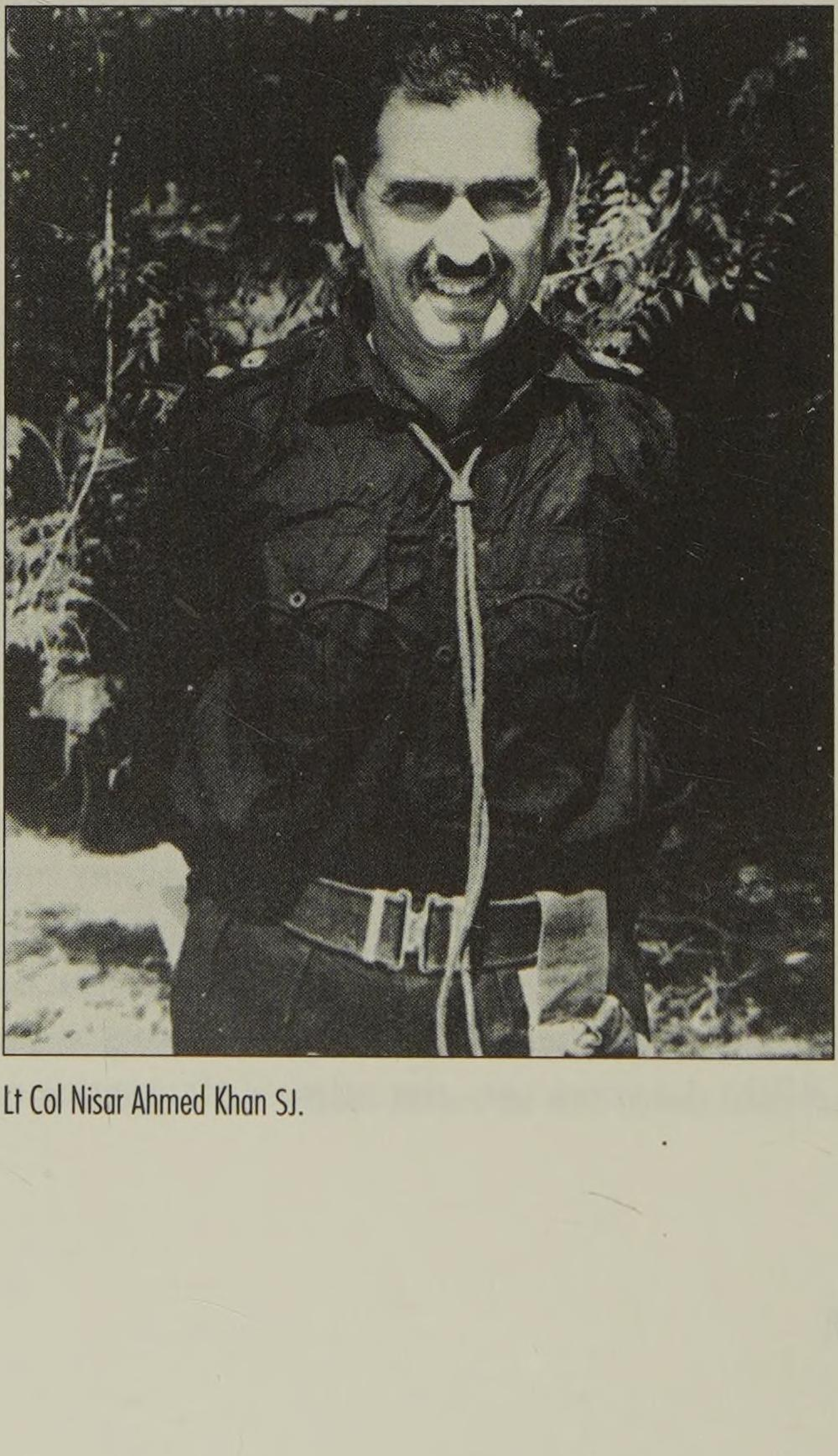
HEROES FROM THE 'OTHER SIDE OF THE HILL'

There were of course many brave tank commanders serving with the Pakistani Armoured Corps (PAC), who fought against their erstwhile comrades in arms in the IAC after partition. There were nineteen Muslim squadrons in the IAC at the time of partition, plus other Muslim troopers serving in the Viceroy and Presidential Bodyguards. All were transferred to Pakistan, eight squadrons of which were already within the six earmarked cavalry regiments, while the remaining eleven were exchanged for ten non-Muslim squadrons from Pakistani cavalry regiments. New armoured regiments have also been raised post-partition, one being the 25th Cavalry, now known as 'Men of Steel', which was raised on 9 June 1962. Its first CO was Lt Col (now Brigadier (Retd)) Nisar Ahmed Khan SJ, who is the subject of this story of a Pakistani 'tank ace', for which I must thank three people – in the UK, Maj (Retd) Johnny Evans; in Bangladesh, Maj Gen Iskander Al Karim, known as 'Bachu'; in Pakistan, Lt Gen Ejaz Azim, who was lately Pakistan Ambassador to the USA. Johnny and Bachu served together during the Second World War in the Central India Horse, and Bachu moved with the CIH Muslim Squadron to the 19th Lancers at the time of partition.

Subsequently, he became an armoured divisional commander in the Pakistan Army before volunteering to move to East Pakistan, which in due course became Bangladesh. I am most grateful for all their help.

LT COL N.A. KHAN SJ

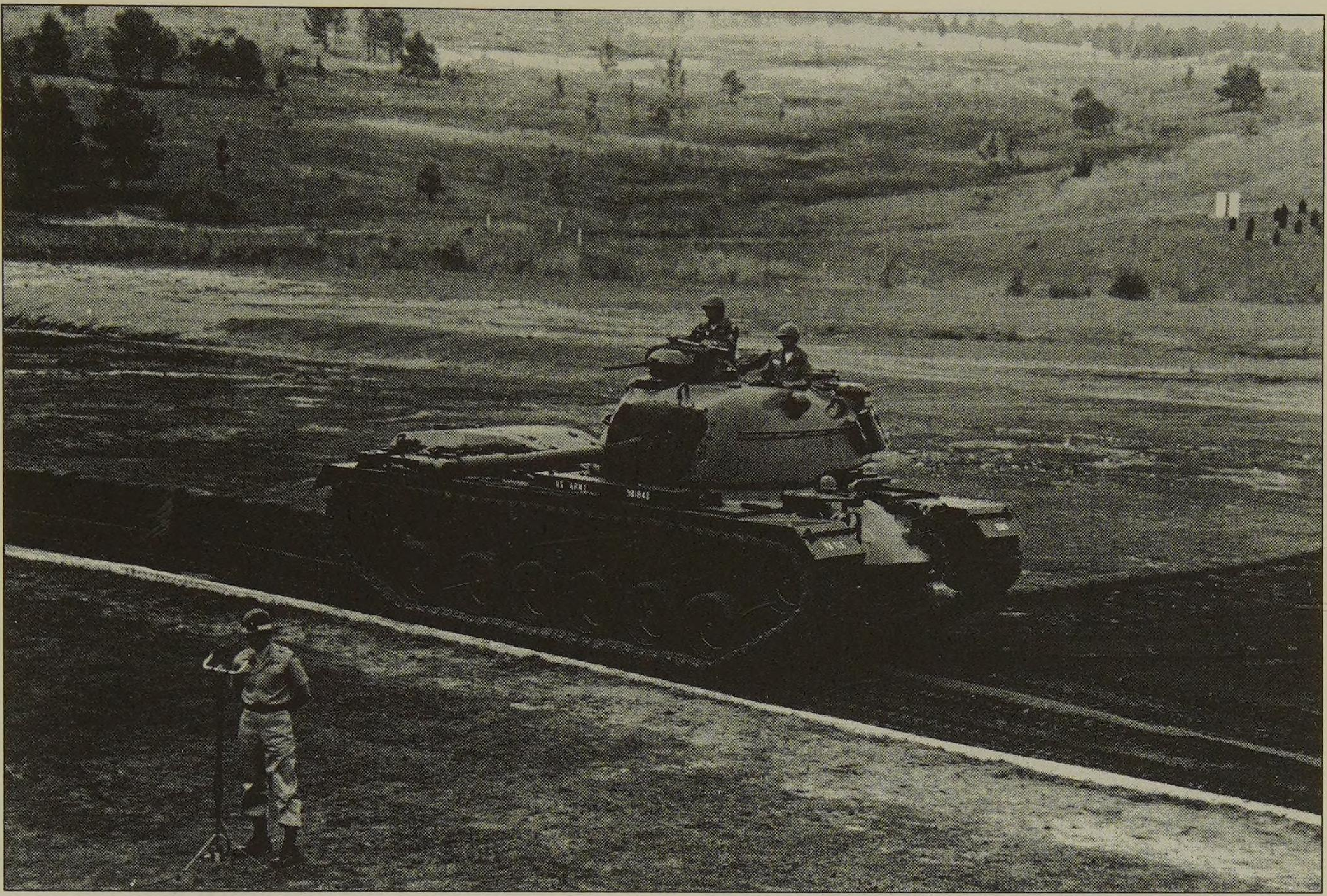
The *Sitara-i-Jura'at* is the Pakistani equivalent of the British Military Cross and the *Tamgha-i-Jura'at* the equivalent of the Distinguished Conduct Medal. The former is a silver pentagonal figure with a large five-pointed star superimposed, the ribbon is white, dark green and white in equal proportions. The latter is a circular medal in bronze, on the obverse of which there is a trophy of lances and pennons, swords and a field gun within a wreath, with a small central disc bearing a crescent and star. The ribbon is half dark green, half scarlet, with narrow white edges. 25th Cavalry won no fewer than five *Sitara-i-Juar'ats* and nineteen *Tamgha-i-Jura'ats* in the seventeen days of the 1965 war.



Lt Col Nisar Ahmed Khan SJ.

Lt Col Nisar Ahmed Khan, who had carefully prepared the regiment in three years of training, took the 25th Cavalry into action. He had been commissioned into the Indian Army in March 1942, serving in both Palestine and Aden during the Second World War. At the time of partition he was arrested and spent nine months in custody for being a Muslim. He was commissioned in the Pakistan Army in August 1948. He took part in both the 1965 and 1971 wars, and retired in March 1972. In his regiment, two of his three fighting squadrons were equipped with the 40-ton M-47 American-built Patton tank, which mounted a 90-mm gun and was crewed by five men. By the time the 25th Cavalry took over the tanks they had changed hands at least half a dozen times, most had run over 2,400 miles – some 400 miles in excess of the normal engine life of the Continental AV 1790-5B 750-bhp petrol engine. The third squadron had the more modern M-48 Patton, which had replaced the M-47. The 44-ton M-48s were in much better condition, but were still armed with the 90-mm main gun. The regiment was the integral armoured regiment of an infantry division, being grouped for operations with an infantry brigade which comprised two infantry battalions and a regiment of field artillery.

The brigade group's task was to defend the area between Aik Nullah in the west and Deg Nadi in the east, with orders to expel and destroy any enemy entering Pakistani territory through this corridor. While it was preparing for the task, the brigade received clear indications that the enemy intended to attack in its area of responsibility; fortunately extensive reconnaissance of the area had been carried out and a plan of action carefully arranged. The brigade commander's overall plan was to block the enemy advance with one tank squadron plus all the available anti-tank guns under

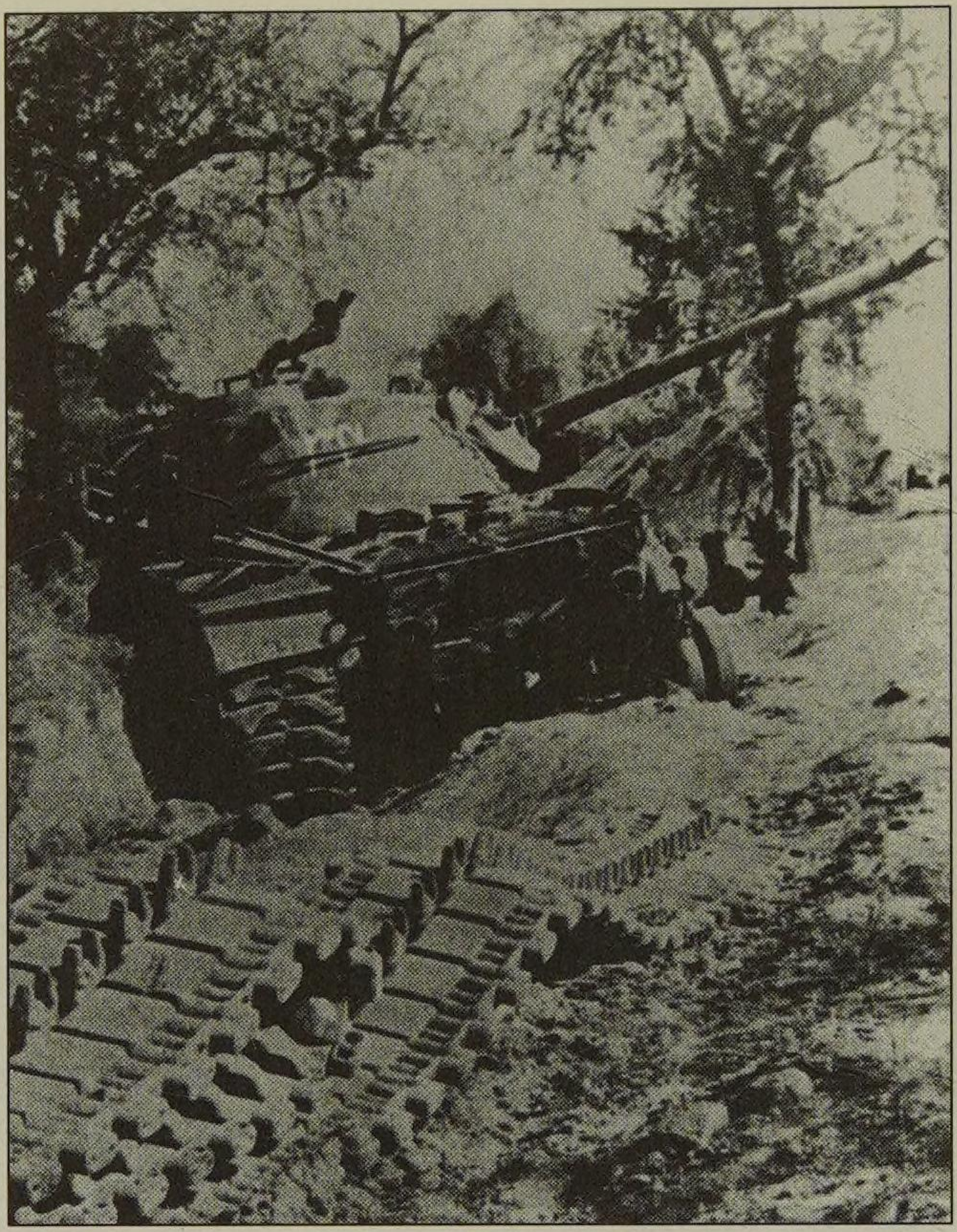


This M48A3, on parade in the USA, was the type of Patton tank purchased by the Pakistanis and used in the Indo–Pakistan wars. (Tank Museum)

command, while keeping the rest of the 25th Cavalry as a strike force, ready to swing round to the east of the blocking force and hit the enemy in the flank once it had been held up. By the morning of 7 September 1965, all was in position to accomplish the set task.

However, the best laid schemes often go awry – especially on the battlefield! On the evening of 7 September fresh orders were received for the brigade to move with all speed to Jassar, some 30 miles away, to counter-attack an enemy bridgehead and then to stabilize the situation in that area. The regiment was on the move all through the night, using up precious track mileage, only to discover that the enemy move was merely a diversionary attack. More orders were then received to move back and concentrate at Pasrur, some 15 miles away from the original carefully prepared battle positions. As anticipated, the Indian attack came in on the brigade on the night of 7/8 September. The attack was in considerable strength – a complete armoured division and three infantry divisions being involved. Because of its abortive move to Jassar, the brigade's original area of responsibility had become vulnerable and all the carefully thought out plans went by the board. The enemy took full advantage of the situation and occupied their initial objectives with little resistance.

The regiment's first news of the enemy's real attack came at 0630 hrs on 8 September. There was no organized resistance left north of Chawinda and the brigade commander, who knew no more about the situation than Col Nisar, sent for him and gave him the



A Pakistani M-48 minus its left-hand track, knocked out during the battles, would have presented a difficult recovery problem for the Pakistanis if the track was badly damaged. (Tank Museum)

following order: 'Nisar! The enemy has come! Do something about it!' Thus on the morning of 8 September, the 25th Cavalry embarked on a fresh mission in which it would be engaged in its first major tank battle with a numerically superior enemy over ideal tank country. Lt Col Khan's plan was to contact the enemy with one squadron as far forward as possible and, once halted, to strike the enemy from the flank with the remaining two squadrons. Despite the fact that the regiment had been on the move throughout the previous night and that the tank crews had had no rest at all, it went into action with true cavalry spirit of dash and courage, and achieved its initial objective – to halt the enemy and force them to withdraw, surrendering some of the ground which they had captured. Considerable losses were also inflicted on the Indian 1 Armd Div, particularly to the Poona Horse, which would lose its brave CO, Lt Col Adi Tarapore, just eight days later in the battle around Phillora, as has already been explained. Undoubtedly, the 25th Cavalry blunted the enemy onslaught and despite being under constant severe shelling and other intense fire from enemy weapons, it remained a cohesive, competent and effective armoured unit, destroying many enemy tanks in the process.

It is interesting to record what Maj Gen Gurcharn Singh Sandhu has to say about this battle in his history of the IAC, *The Indian Armour*: 'The Pakistani version of this action is that "A" Squadron 25 Cavalry forced 16 Cavalry back to Gadgor. Then its "C" Squadron attacked the Poona Horse's leading elements as well as 16 Cavalry and forced them out of Tharoh, Gadgor and Chobara. The Pakistani regiment claims to have destroyed 15 Centurion tanks this day. This regiment's performance was certainly creditable because it alone stood between the Indian 1 Armd Div and its objective.'

For his courage and exemplary command of his regiment and his skill in handling his tanks, Lt Col Nisar Ahmed Khan was awarded the *Sitara-i-Jura'at*. The entire regiment performed with extraordinary courage and dash under continuous heavy shelling and handled their tanks with great skill. Lt Col Khan's citation includes the words: 'It is because of his personal example, courage and inspiring leadership that his regiment fought as an excellent well-knit fighting machine and inflicted crippling losses on the enemy.'

NOTES

1. India purchased some 188 Centurions Mk 7 (armed with 20-pdr main gun and carrying 61 rounds) between 1955–7, and these formed the basis of its 1 Armd Div. The unit used these vehicles in both the 1965 and 1971 Indo-Pakistan Wars. The robust, simple

A Pakistani Patton, which was knocked out and captured by the Indian Army on the battlefield in Shakangarh, West Pakistan. (Indian Army via Geoff Tillotson)

to operate Centurion proved to be the outstanding tank of both conflicts, outclassing the more sophisticated M47 and M48 Pattons of American origin, whose 90-mm gun had the greatest difficulty in penetrating the Centurion's armour. The Centurions are no longer in service in the Indian Army.

2. The Centurion was fitted with a gun stabilizer system, which enabled the gunner to keep the gun accurately aligned onto a target, even when his tank was zig-zagging across rough terrain.

3. RCL Gun – the Pakistani Army had two RCL anti-tank guns, 75 mm and 106 mm, which could be jeep-mounted. An RCL gun has no recoil, the ejected shell being counterbalanced by a mass of extremely high velocity gas. It can thus be very light and manoeuvrable, but does have a large backblast, producing a tell-tale firing 'signature' and making it somewhat dangerous to operate.

THE GULF WAR

The amazing 100-hour ground battle, code-named Operation 'Desert Sabre', brought the Gulf War to an abrupt end and showed the much-vaunted Iraqi Army – said at the time to be the fourth largest army in the world – to be a 'paper tiger', which collapsed like a pricked balloon under the determined assault of the much smaller but better trained and equipped, professional armed forces of the Coalition countries. A major component of these forces were the armoured divisions of America and Britain, whose expertise and high morale played such an important part in the destruction of over 4,000 Iraqi armoured fighting vehicles. Here are the stories of just two of these Coalition tankmen – one American and one British.

COL E.L. DYER

Among the US Army tank aces of the Second World War, covered much earlier in this book, was the great Gen Creighton Abrams, whose inspirational command of the 4th Armored Division's 1-37 Tank Battalion played such an important part in the division's success in north-west Europe. Therefore it is fitting that I should close the book by covering the most recent exploits of this same famous battalion, now proudly known as 'The Abrams Battalion'. Its CO in the Gulf War was Edward L. Dyer, now serving in the Pentagon, who had been born and raised in Ann Arbor, Michigan. His parents were both teachers and he was one of eight children – 'tied for third, i.e. a twin' is how he explained it to me. Theirs was a close, happy family, and his father taught science and coached football at the local high school. Edward grew up learning about his father's exploits in the Second World War, when he flew with Chennault's famous 'Flying Tigers', over 'The Hump' into China.[1]

Determined to be a soldier from the age of ten, Edward earned a place at West Point after graduating from St Thomas Aquina High School in 1968 – the second in the family to do so, his oldest brother having graduated some five years earlier. It was while visiting his brother at West Point and staying with his tactical officer who was a tanker, that Edward was introduced to tanks. Then, during his second year at the Academy, he visited the Armor School at Fort Knox, where he 'watched an awesome firepower display and listened to the then Commandant, Maj Gen George S. Patton [son of the famous Second World War general]. I knew then I wanted to be a tanker.'

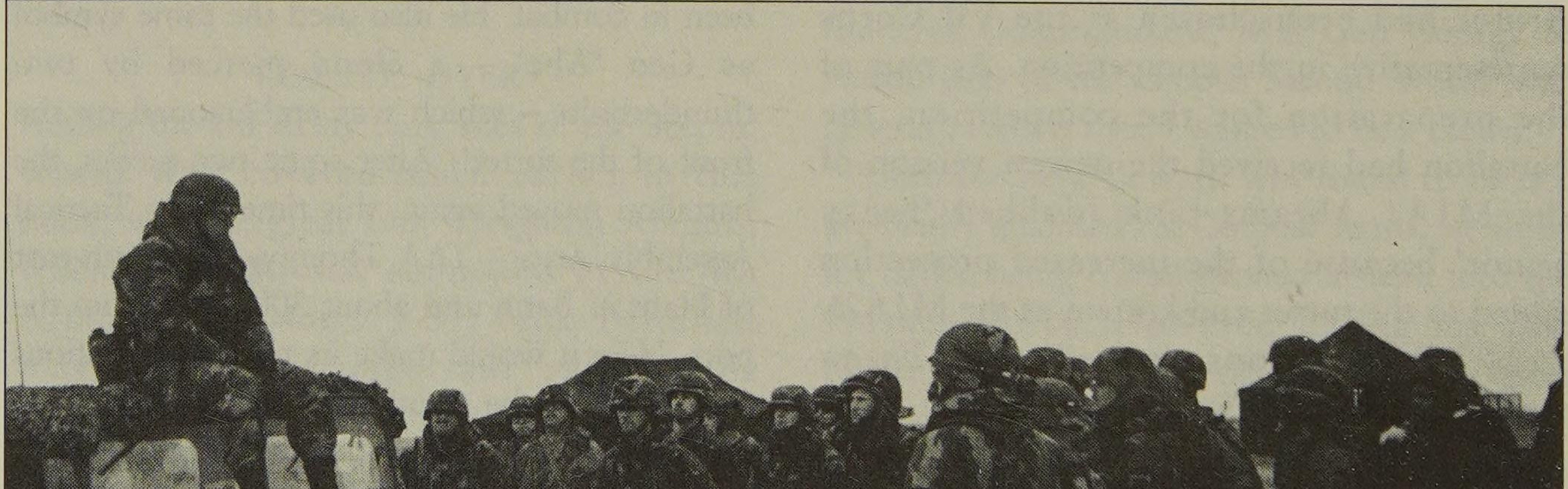
Unfortunately, Edward was found to be not physically qualified for Combat Arms, let alone for tanks, being commissioned instead into the Finance Corps. However, during his first posting as a finance officer at Fort Lee, Virginia, he managed to convince the doctors that he was physically qualified and requested a branch transfer to the Armor Corps, which was finally approved in 1974. That summer he was assigned to the 1st Battalion 32d Armor, 3rd Armored Division, in Germany and spent the next four years working his way up to company commander. 'It was during that assignment that I met the officer who would have the greatest impact on my career. Lt Col Ron Griffith took command of the battalion shortly after I took command of my company.' They would serve together on three more occasions, including when Gen Griffith was his division commander in the Gulf when 1-37 was part of 1 Armd Div. Over the next twenty years Edward Dyer's career included teaching ROTC cadets at Indiana University, helping to field the new Bradley Fighting Vehicle, attending the Armed Forces Staff College and serving as an aide to Lt Gen Norman Schwarzkopf, as well as regular tank battalion assignments. Then in June 1990, he took command of the 1st Battalion, 37th Armor: '. . . the greatest thrill of my career to take command of a battalion with such a great lineage.' He would command the battalion for the next two years, which included taking it to the Gulf, as he explains:

'The 1st Armored Division was alerted for deployment to Operation "Desert Shield" on the 9th of November 1990. At the time the 1st Battalion, 37th Armor, stationed in Vilseck, Germany, was preparing for its participation in the Canadian Army Trophy international tank gunnery competition. 1-37 Armor had been chosen as the VII Corps representative in the competition. As part of the preparation for the competition, the battalion had received the newest version of the M1A1 Abrams tank (dubbed 'heavy armor' because of the increased protection added to the turret and known as the M1A2). . . . Preparations immediately began throughout the unit for deployment.'

There was a great deal for 1-37 to do as it prepared for operational service, including vital medical and dental checks, intelligence briefings, family care planning, vehicle load planning, special maintenance checks, servicing vehicles, and so on. Equally important was additional training – on individual weapons and upon the battalion's tank gunnery. Tank platoon and company manoeuvres were conducted in computerized tank simulators at Grafenwohr, simulating desert conditions. Then, on 30 November/1 December, the battalion and most of its vehicles were loaded onto four trains and sent to Bremerhaven. Preceded by an advance party, the main body left on Christmas Day, reaching the initial staging area at Al Jubayl, Saudi Arabia, on the 30th. Left behind were a large number of worried families – including Ed Dyer's. He had married Gia at the end of his second year at West Point and she had 'faithfully followed him around the world ever since . . . finishing Nursing School in between having babies' [they have four children, the eldest, Jennifer, having been recently commissioned into the Nurse Corps].

While at Al Jubayl, the battalion concentrated on desert acclimatization, PT, rifle and machine-gun qualification, desert land navigation, plus vehicle maintenance and painting its vehicles. (Before leaving Germany Col Dyer had re-christened his tank *Thunderbolt VII* in the tradition of the late Gen Abrams, who had commanded the battalion on the last time it had been in combat. He also used the same symbol as Gen 'Abe' – a cloud pierced by two thunderbolts – which was emblazoned on the front of the turret!) After some two weeks, the battalion moved again, this time to its Tactical Assembly Area – TAA Thompson – south-east of Hafir al Batin and about 300 miles from the port. Here it would make its main preparations for battle, so the training intensified. The men also experienced their first major sandstorm, '. . . a condition we were to become used to, but never comfortable with' commented Col Dyer. 1-37's second manoeuvre exercise took place in high winds, rain and near zero visibility – hardly the desert conditions that had been expected – but, as it turned out, good practice for the conditions the battalion would have to face in the battle to come. The men quickly settled down as part of a brigade leaguer, with portable latrines and showers provided by a Saudi contractor (which made life a little more

Lt Col Edward Dyer, in reflective mood, leans against the side plate of his M1A1 *Thunderbolt VII.* (Col E. Dyer)



Lt Col Dyer giving his daily briefing to one of TF 1-37 tank companies in Tactical Assembly Area Thompson. (Col E. Dyer) bearable), while the mess team provided one hot meal a day, supplemented with fresh bread, fruit, etc. The battalion command, Sgt Maj, CSM Rod Caesar, became a local folk hero thanks to his successful efforts to 'procure' speciality items to supplement the 'B' or 'T' rations. Mail eventually began to flow and AT&T lines were made available for those all-important calls home. Security of information during this period was of paramount importance. However, Col Dyer made it his business to visit every company each day and to get the soldiers to gather around his HMMWV,[2] when he would sit on the hood and give everyone the latest situation updates – often 'bending the rules' in a effort to keep his men as well informed as possible.

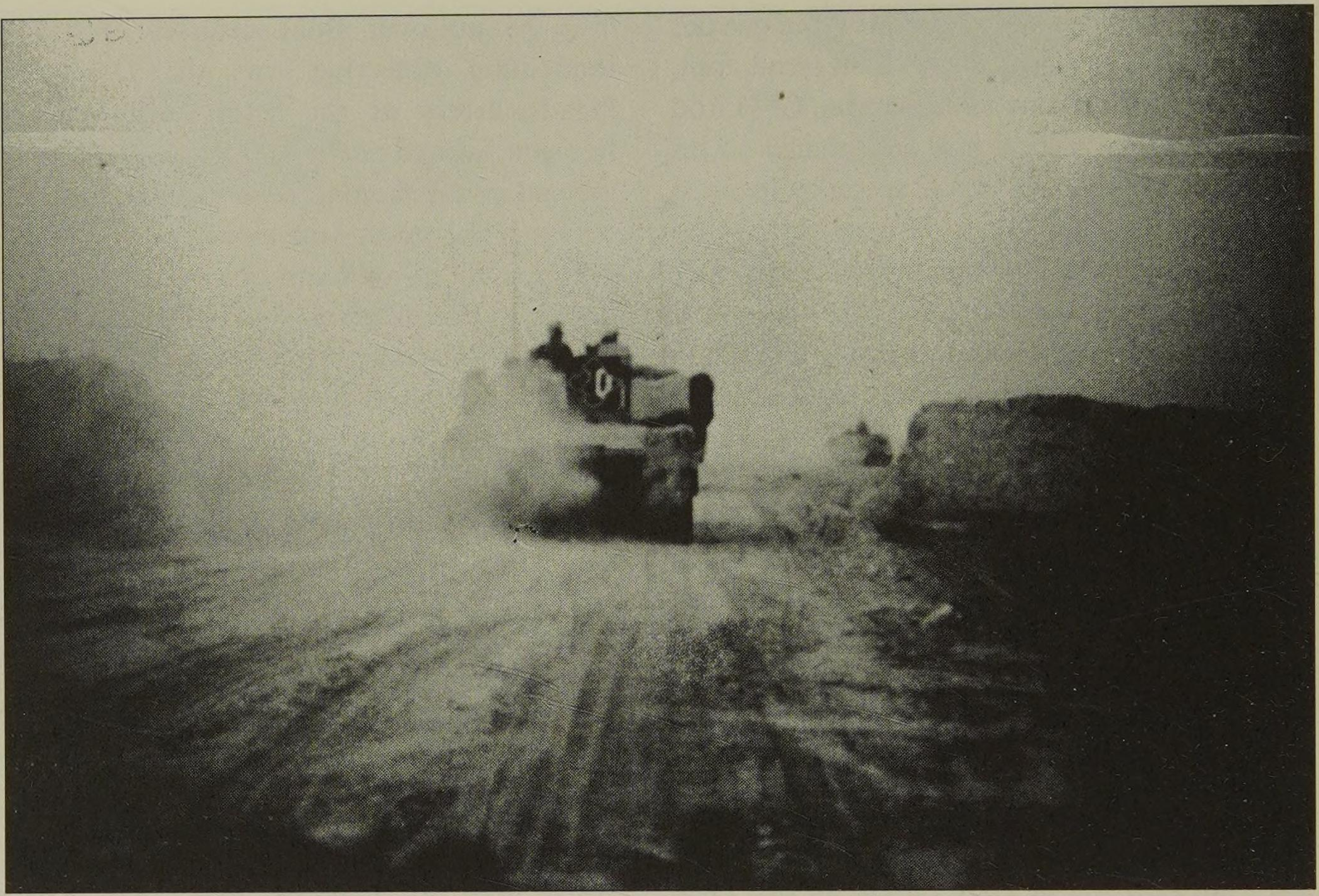
On 14 February, 1 Armd Div began to move from the TAA to Forward Assembly Area Garcia, providing an excellent opportunity to rehearse the large-scale attack formations which were planned for the assault on Iraq. Arriving at FAA Garcia on the 15th, 1 Armd Div began its final preparations for the battle to come, but not knowing when it would begin. Col Dyer recalls:

'Weapon systems and equipment received final checks and local plans were adjusted for combat operations. Because we were forced to leave certain amenities behind in TAA Thompson (latrines, showers, much of our tentage and mess equipment), life became even more austere. For the next few days we waited for word to go, final rehearsals were conducted for the initial assault on Iraq. Finally we got word that the attack would commence on the 24th, with 1st Infantry Division conducting the initial breach of the Iraqi defensive positions. VIIth Corps would attack approximately 24 hours later to exploit the breach and attack deep against the Iraqi Republican Guard.'

At 0700 hrs on the 24th Ed Dyer held a command and staff meeting at his Task Force HQ, to go over final details. TF 1-37's immediate objective was the Divisional Headquarters of the Iraqi 26th Infantry Division, located nearly 100 km inside Iraq. At the end of the meeting he advised everyone to be ready for an instant move, as 1 Inf Div's attack could go well and quickly get ahead of schedule. This in fact proved to be the case, the brigade commander, Col Daniel Zanini, calling at 0900 hrs to ask how quickly the TF could move. Dyer was able to inform him that they could move in one hour, since preparations were well in hand. Dyer's narrative continues:

'By 1000 the Task Force was formed up in attack formation and ready to move. At 1400 the attack commenced and at 1730, TF 1-37 crossed the border into Iraq. At approximately 2000 the TF halted and began refuelling operations. No enemy contact had been made thus far. Coordination meetings were held at Brigade and Task Force headquarters, and 'Stand To' was set for 0430 on the 25th. The Task Force began movement again shortly thereafter.

'At approximately 1000, the Task Force made its first enemy contact, when the Scout Platoon captured a four-man Iraqi patrol while conducting flank security on the TF right flank. At 1200, the TF crossed a major escarpment (Phase Line Melon) and at 1400, the lead elements of the brigade made contact with elements of the Iraqi 26th Division. The Brigade Commander immediately "set" his artillery battalion (i.e. ordered them to halt and take up fire positions) and began manoeuvering against the enemy position. TF 1-37 commenced a movement east and north to get on the flank of the enemy defensive position. The enemy Div HQ was located in a cluster of cinder block buildings surrounding a remote crossroads of desert trails. It initially was defended by as much as a battalion, but by the time we arrived, it was



TF 1-37 Armor's S-3 (Maj Jack Gulden) 'Crossing the Berm' into Iraq, 1730 hrs on 24 February 1991. (Col E Dyer)

largely abandoned and lightly defended. By 1430, the TF was ready to assault. The TF commander instructed the Fire Support Officer to "prep"[3] the enemy location for fifteen minutes and the assault started at 1500 hours. The TF assaulted with all three tank companies on line followed by the mech infantry company.'

There were thus three companies of M1A2 main battle tanks 'on line', that is to say all able to fire their main guns and coaxially mounted machine-guns directly at the enemy. As one of Col Dyer's platoon commanders, 2nd Lt Richard M. Bohannon, put it in an article in *Armor* magazine: '45 tanks assembling on line can wreak havoc on the enemy, but are difficult to control during limited visibility and combat conditions. We had rehearsed this play, known to us as "DRAGON'S ROAR" several times in Saudi Arabia.' The manoeuvre was successful and by 1615 hrs, the objective had been taken, the Task Force having destroyed four enemy APCs, eight AA weapons and captured approximately forty enemy.

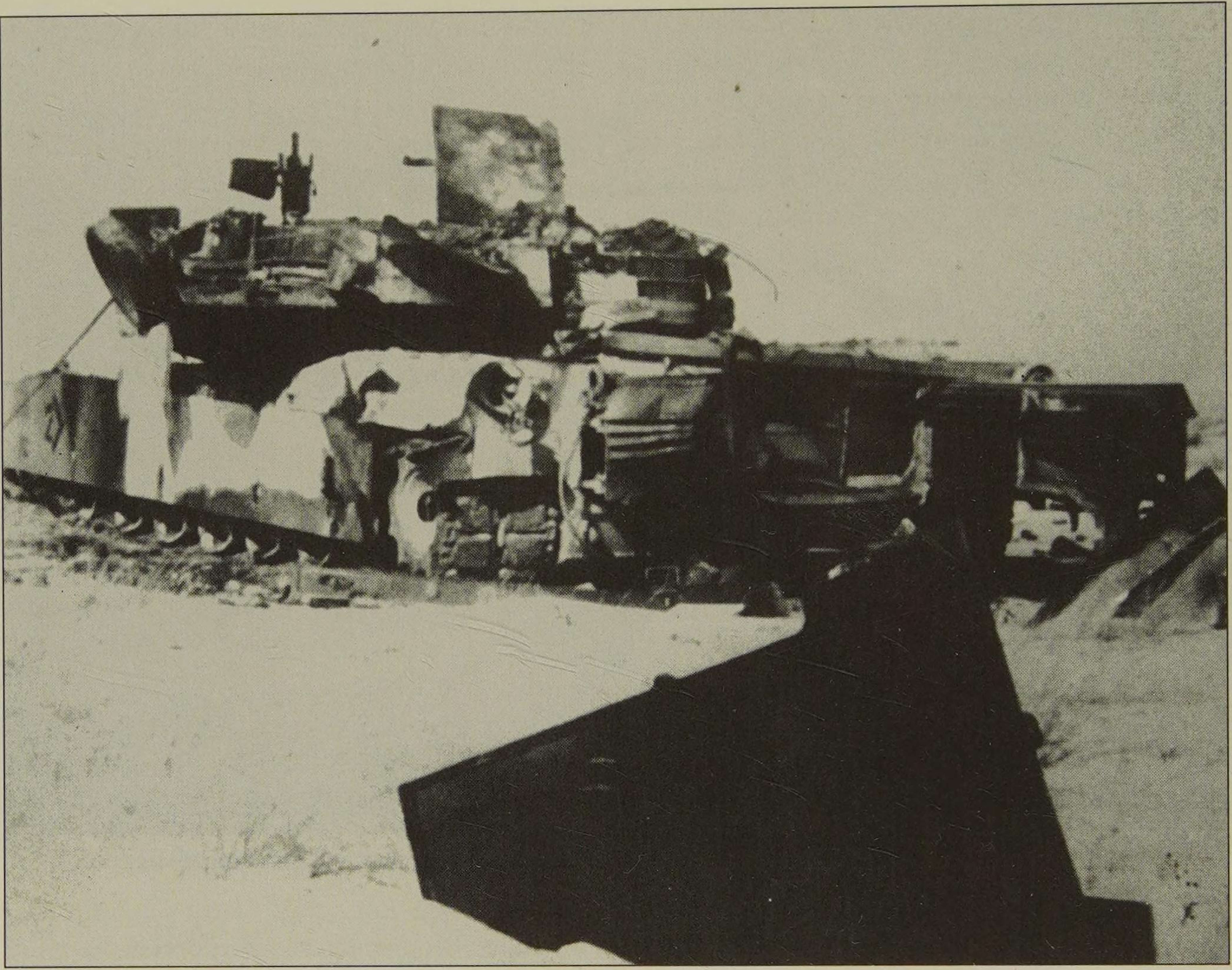
By 1900 hrs the brigade had reconstituted, but was put into reserve for the next attack by 1 Armd Div – this time on a major corps logistic level complex at Al Busaya. The objective was hammered by artillery throughout the night, then attacked by the other two brigades at 0630 hrs on the 26th. While this attack was in progress Ed Dyer's Task Force continued to move north, preparing for its next operation. It halted at 1200 hrs to refuel and at the same time

Refuelling operations in progress during the night of 25 February 1991. (Col E. Dyer)

received orders that its next objective was to attack the Madina Division of the Republican Guard. Quick orders were issued, maps prepared and the TF was ready to move again at 1400 hrs. At 1600 hrs an intelligence report was received that the Air Force had sighted a large enemy armoured force in defensive positions directly in front of the brigade at about 25 km distance. As it turned out this was a brigade of the Tawakalna Republican Guard Mechanized Division, the northernmost brigade of three. The other two would be taken on by the Second Armored Cavalry Regiment and the 3rd Armored Division in the battle which was known as '73 Easting'.

Lt Col Dyer recalls:

'Lead elements of our brigade made contact just prior to 1830 hrs, it was completely dark by now and the weather was deteriorating rapidly – wind, driving rain and blowing sand. Again the brigade commander ordered the Artillery battalion to set and TF 1-37 was ordered to come on line to right flank the brigade's lead TF (7-6 Infantry). At 1940 hours, 3-1 Field Artillery, our direct support battalion, began a "prep" of the enemy position with adjustments by fire support officers from 7-6 Infantry. At 2000, D Company TF 1-37 made initial contact with enemy tanks and dismounted infantry and a long-range gun duel ensued with TF 1-37 and TF 7-6 standing off at approximately 3000 m, destroying enemy vehicles with long range tank fire and TOW[4] missiles from the Bradley Fighting Vehicles. When the enemy tried to return fire they were totally ineffective since they had limited night vision capability and did not have the range of the



The B Coy M1A1 which was hit first by enemy fire, then destroyed by a Hellfire missile. (Col E. Dyer)

M1A1 and TOW. While we were unsure of the size of the enemy force, by 2015 the B Company commander reported that he could see eleven enemy vehicles burning and there were other reports of enemy vehicles attempting to withdraw. By 2030 the artillery prep was complete and TF 7-6 Infantry was ordered to cease firing and TF 1-37 Armor was ordered to assault the enemy position and destroy all enemy vehicles.'

Lt Col Dyer again ordered his three tank companies to come on line and assault, followed by the Mech Inf Company (C Co, 7-6) 1000 m behind. The assault was to proceed slowly, he told them, so as to ensure that all enemy vehicles were destroyed by tank gunfire. By 2050 hrs an additional eight enemy tanks were reported destroyed and by 2105 hrs the TF had penetrated the enemy position. It now became clear that there were more enemy vehicles present than had been originally thought, as Ed Dyer explains:

'The TF was now engaged in a "gun tube-to-gun tube" battle with an enemy brigade and things began to happen very fast. At 2115, B Company reported that it was in a firefight with a group of enemy T-72s. At 2124 a flight of unknown US attack helicopters arrived and began firing into the enemy position, apparently not realising that the TF had already closed on the position. It took nearly twenty long minutes to contact the helicopters and call them off. In the meantime, at 2127, B Co reported that one of their tanks had struck a mine – in fact the tank had been struck in the engine compartment by enemy tank fire and was disabled but was continuing to fight. It was then struck again by a Hellfire missile and destroyed. Three minutes later, C Co reported that one of its tanks had been hit and taken casualties. The Company Commander reported that he was going to the location of his destroyed tank and before the TF Commander could warn him off, the Co Comd's tank was also struck and received multiple casualties. At that point 2Lt Al Alba, a platoon leader in C Co, realised where the fire was coming from and moved his tank between the enemy force and the destroyed vehicles and directed his gunner to suppress the enemy whilst he dismounted, gathered up the eight wounded and dazed crew members from the two tanks and put them on top of his turret. Then, while continuing to place suppressive fire on the enemy, he transported the casualties off the objective. Lt Alba was subsequently awarded the Silver Star for his heroic efforts.

'At the same time (2140), D Co reported that they had a vehicle struck by enemy fire and destroyed. By 2150 the mounted assault was complete and consolidation began. At 2126, the B Co executive officer reported that he had picked up the crew of the destroyed D Co tank. At 2208, evacuation began of the wounded soldiers. Of the 16 crewmen from the four tanks that had been hit, only six (including C Co Comd) required evacuation, a tribute to the survivability built into the M1A1 Abrams tank. By 2300, the mechanised company had completed clearing the objective and reported over 100 enemy prisoners. In the attack 27 enemy T-72 tanks, 47 APCs and five trucks and AA guns were destroyed.'

It was now shortly after midnight and the brigade re-formed into its attack formation to continue the assault towards the enemy positions and at 0530 hrs the TF made contact again with numerous enemy tanks and other vehicles that were starting to move northwards out of Kuwait, trying to escape. For the next 2½ hours Col Dyer's TF continued its slow, methodical advance, destroying enemy vehicles and capturing prisoners. By the time it stopped again to refuel (0805 hrs), it had taken an additional 133 enemy. At 1300 hrs new orders were issued; this time the TF was to attack a major enemy divisional level logistics centre. Col Dyer recalls:

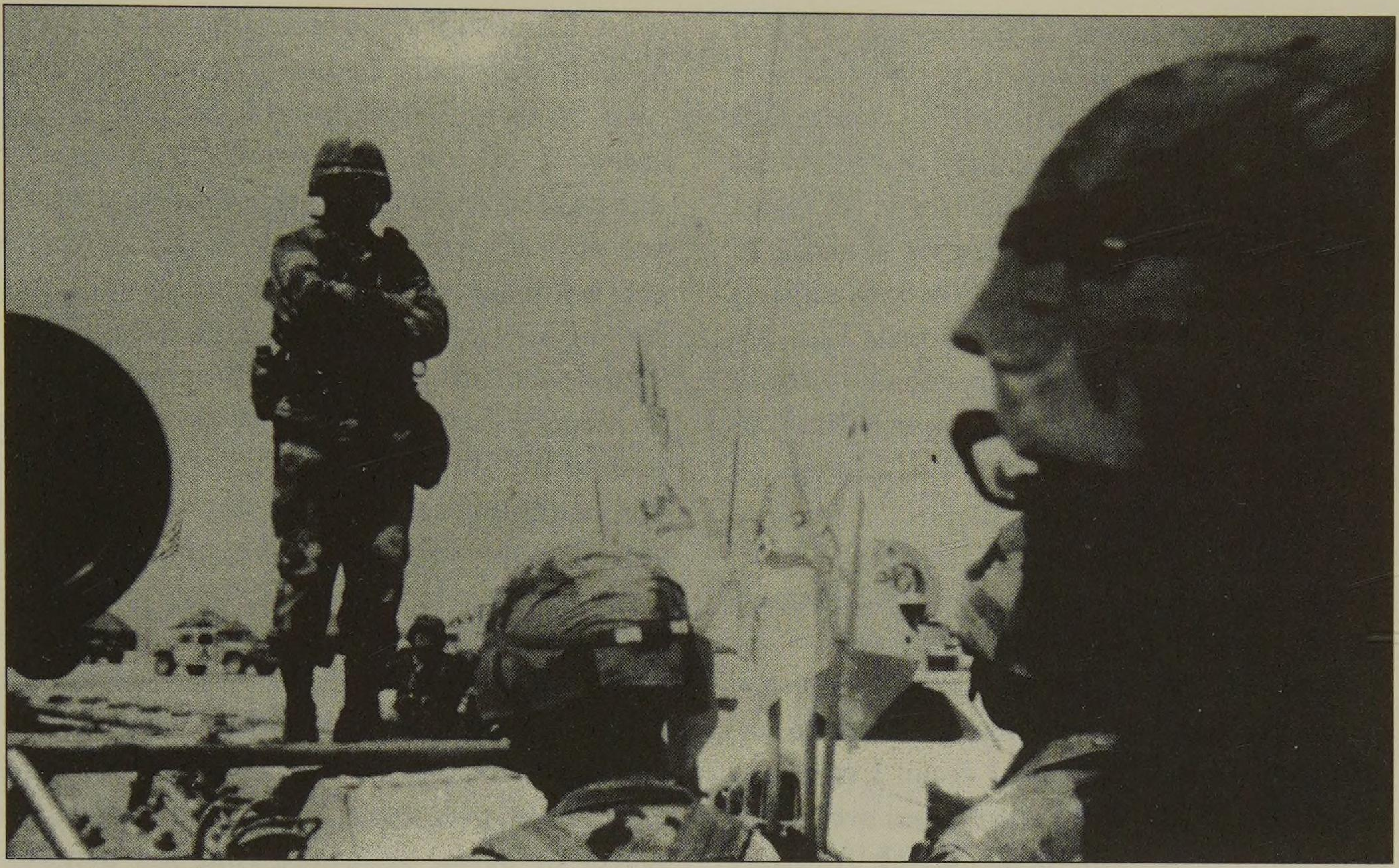
'As the attack proceeded, there was continuous contact with enemy forces attempting to move north out of Kuwait. By 1600 the attack was complete and the TF occupied hasty defensive positions. At 1630 the TF scouts reported sighting four enemy tanks approaching the position. The scouts engaged the tanks with artillery in the fading afternoon light (3-1 Field Artillery fired 144 rounds of Dual Purpose Improved Conventional Munitions) and destroyed all four. At 1805 the Task Force leaders met face to face for the first time since early on the 25th. Over the last 48-plus hours, the TF had been in continuous contact and all orders had been issued over the radio.'

Later on the 27th, word was received that a ceasefire would come into effect at 0800 hrs on the 28th. However, the TF was also ordered to be prepared to continue the attack early on the 28th and it did so at 0530 hrs, contacting numerous enemy vehicles half an hour later. For the next 2½ hours the attack continued, Col Dyer's TF destroying a further 32 tanks (including 12 T-72s), 31 APCs and

The officers of TF 1-37 standing on and around *Thunderbolt VII*. The famous 'Abe' Abrams' logo is just visible on the turret. Lt Col Dyer is standing next to the gun barrel with his hands on his hips. (Col E. Dyer)

numerous reconnaissance and air defence vehicles and trucks. The 'Halt' order came at 0800 hrs, the TF being told to halt, cease fire and take up defensive positions. Rearming, refuelling and maintenance now became the primary tasks. The TF remained in this location until 3 March, when Lt Col Dyer was ordered to send a force back about 50 km, to destroy any bypassed enemy equipment. Accordingly, he despatched a force under Maj Jack Gulden, the battalion operations officer, which comprised a mechanized infantry company, a tank platoon, the engineer platoon and the heavy mortar platoon. It returned the following day with a captured T-72, a BMP APC and an armoured command vehicle. It also reported that it had recovered three of the four knocked-out M1A1s, but that the fourth was too badly damaged to shift. Consequently, another mission was mounted on the 6th to recover the fourth tank. It was a tribute to the battlefield survivability of the Abrams MBT, that only one of the casualties was a total loss and, more importantly, that of the sixteen crew members, ten were almost unscathed, while not one of the other six was severely wounded.

The position in which the TF was located was found to have been heavily bombed during the early part of the war, so the ground was littered with unexploded cluster bombs. Consequently, Lt Col Dyer requested, and was granted, permission to move some 15 km east and re-establish a defensive



Lt Col Dyer addressing his assembled battalion shortly after the end of the ground war. (Col E. Dyer)

position just inside the border of Kuwait. 'On 11th March', he recalls, 'a team was sent back to northern Saudi Arabia to recover some of the tentage and supplies that had been left in TAA Thompson to bring back to help improve the quality of life in Iraq. Life settled into a routine of patrols, vehicle and equipment maintenance and some humanitarian relief in the form of medical treatment for the local Bedouins.'

It would be some weeks before 1-37 Armor would return to the business of soldiering in Germany, after their four months in the Gulf. During the four days of combat operations it had destroyed nearly 200 enemy combat vehicles and captured nearly 1,000 enemy soldiers, with minimal casualties itself. It had learned a number of important lessons, had vindicated the battleworthiness of its magnificent Abrams main battle tanks, and above all had shown what can be achieved no matter how great the odds, by properly trained and motivated, volunteer soldiers, who believe in what they are doing. As Col Dyer rightly says, 'The soldiers performed magnificently and certainly lived up to the battalion motto: "Courage Conquers".'

At the end of his period in command, Lt Col Dyer returned to the USA and attended the Army War College. While there, he was selected for command of a brigade and returned to Germany in April 1994 to take command of 3 Bde, 1 Armd Div, the brigade he had fought under in the Gulf. His first task was to pack up the brigade and to move it 'lock, stock and barrel' to Fort Lewis, Washington. Two years later, in May 1996, he was posted to Washington, where he is currently serving on the Joint Staff at the Pentagon, as Deputy for Current Plans.

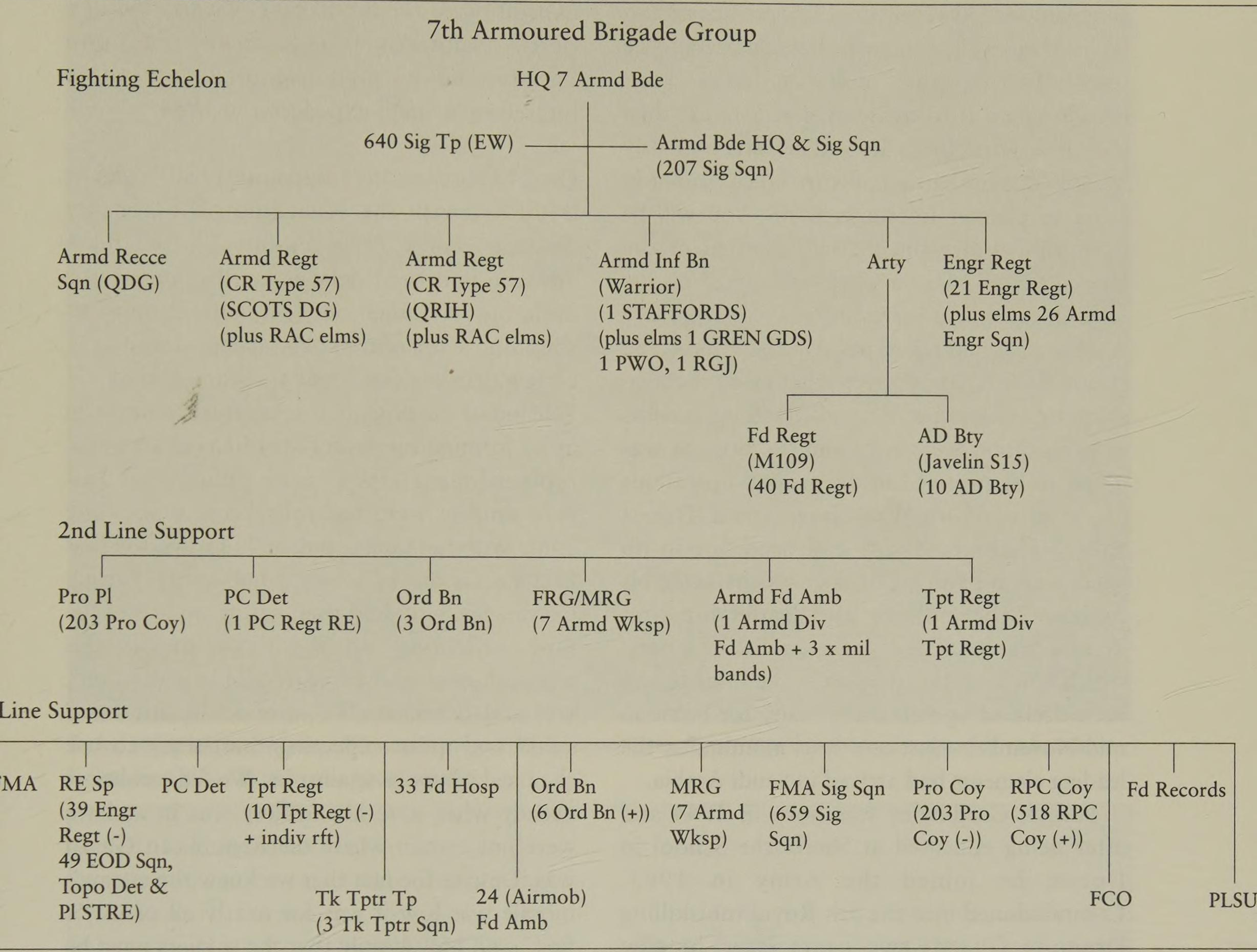
Col Dyer is the holder of the Legion of Merit and received two Bronze Star Medals as a result of his Gulf War service. The Bronze Star Medal is awarded to members of the United States Army, Navy, Marine Corps or Coast Guard, who distinguish themselves in heroic or meritorious service in connection with military operations. One of Col Dyer's Bronze Stars has the 'V' device for Valour, specifically for the actions on 26 February, a fitting tribute to his skill and bravery in the battle of 73 Easting.

MAJ GEN P.A.J. CORDINGLEY

It was 0500 hrs on Monday 25 February 1991, raining and uncomfortably cold – not the kind of weather one might have expected in the middle of the Arabian Desert, but the deluge which had started at about five on the evening of the 23rd, had continued ever since, practically non-stop. Brig Patrick Anthony John Cordingley, commander of the 7th Armoured Brigade Group (7 Armd Bde Gp), gave up trying to sleep and got up. He did not want to wake the rest of his tank crew by starting the engine, so washed in cold water and ate a miserable breakfast of cold sausages and beans out of a tin from the ration pack. One of his last acts the previous evening had been to call his battlegroup commanders on the secure radio and to tell them: 'We are leading the division. Confirmatory orders at this headquarters at 0630 hours tomorrow morning. Priority now is replenishment and rest. No move before 0800 hours. We are at thirty minutes' notice to move from 0730 hours. I suggest you and all commanders get a good night's sleep. It may be your last chance for a bit.' Despite some understandable apprehension, he made no secret of being delighted that his brigade group had been chosen to lead the British 1st Armoured Division through the breach which had been made in the Iraqi defences, after all the hard preparatory work it had put in during the five months since its arrival in the Gulf. He was proud to be flying from his tank antenna the pennant which had been flown from 1942 onwards by successive generals who had commanded the illustrious 7 Armd Div of the Second World War, the veteran armoured soldiers whom Churchill had once called his 'Dear Desert Rats'.

Maj Gen Patrick Cordingley DSO, whose inspirational leadership of 7 Armd Bde Gp during the Gulf War wrote another stirring chapter in the history of the 'Desert Rats'. (Gen Patrick Cordingley)

Coming to the Gulf from the British Army of the Rhine in the autumn of 1990, 7 Armd Bde Gp had, by the end of the year, increased in size to an unwieldly 'tail-heavy' 12,000 all ranks instead of its normal 5,000. However, once the headquarters and other units of 1 Armd Div and 4 Armd Bde had joined it, in January 1991, it had slimmed down to a more manageable size. However, it was still a formidable force for one man to command and control in the field. The brigade consisted basically of a fighting echelon of an armoured


7th Armoured Brigade Group
Fighting Echelon
HQ 7 Armd Bde
640 Sig Tp (EW)
Armd Bde HQ & Sig Sqn (207 Sig Sqn)
Armd Recce Sqn (QDG)
Armd Regt (CR Type 57) (SCOTS DG) (plus RAC elms)
Armd Regt (CR Type 57) (QRIH) (plus RAC elms)
Armd Inf Bn (Warrior) (1 STAFFORDS) (plus elms 1 GREN GDS) 1 PWO, 1 RGJ)
Arty
Engr Regt (21 Engr Regt) (plus elms 26 Armd Engr Sqn)
Fd Regt (M109) (40 Fd Regt)
AD Bty (Javelin S15) (10 AD Bty)
2nd Line Support
Pro Pl (203 Pro Coy)
PC Det (1 PC Regt RE)
Ord Bn (3 Ord Bn)
FRG/MRG (7 Armd Wksp)
Armd Fd Amb (1 Armd Div Fd Amb + 3 x mil bands)
Tpt Regt (1 Armd Div Tpt Regt)
Line Support
MA
RE Sp (39 Engr Regt (-) 49 EOD Sqn, Topo Det & Pl STRE)
PC Det
Tpt Regt (10 Tpt Regt (-) + indiv rft)
Tk Tptr Tp (3 Tk Tptr Sqn)
33 Fd Hosp
24 (Airmob) Fd Amb
Ord Bn (6 Ord Bn (+))
MRG (7 Armd Wksp)
FMA Sig Sqn (659 Sig Sqn)
Pro Coy (203 Pro Coy (-))
RPC Coy (518 RPC Coy (+))
FCO
Fd Records
PLSU

ORBAT of 7 Armd Bde Gp.

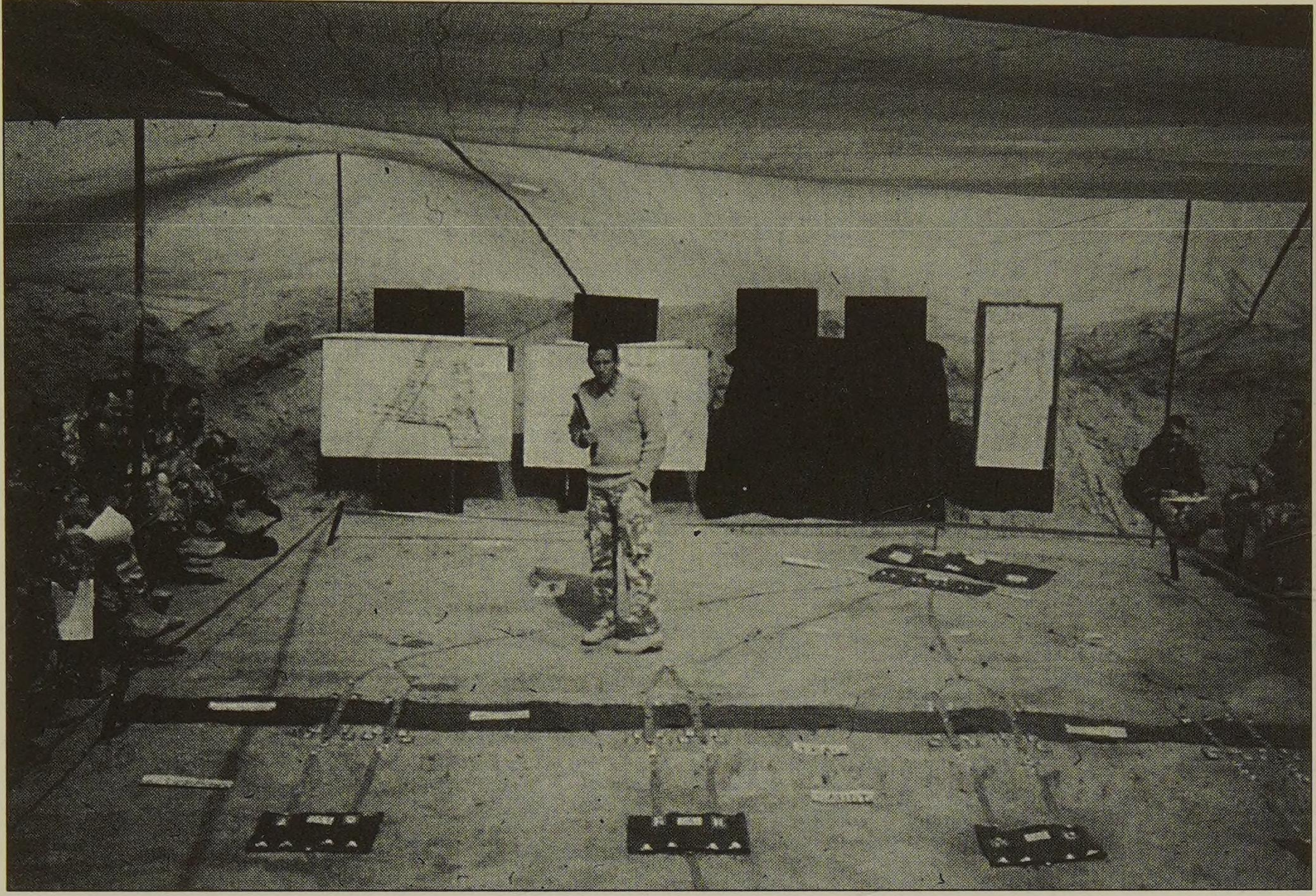
reconnaissance squadron (QDG), two armoured regiments (Scots DG and QRIH), each manning 57 Challenger main battle tanks, an armoured infantry battalion (1 Staffords) of 52 Warrior armoured infantry fighting vehicles, a field artillery regiment (40 Field) of M109 self-propelled guns plus a Javelin-S15 missile-equipped air defence battery (10 AD Bty), augmented by a complete engineer regiment (21 Engr). In addition to its normal support units, its 'tail' had been increased by a bewildering array of smaller units and sub-units that would provide second and third line support in the strange and hostile desert environment, as the above outline orbat shows.

The first intimation that Patrick Cordingley's brigade might be deployed to Saudi Arabia had come the previous summer (1990) soon after Iraq's invasion of Kuwait, with a chance remark during a divisional study day held at Wolfenbuttel, but at the time it had been mere supposition. However, on 12 September 1990 he had been called to corps headquarters to be told: 'During the next 26 days your establishment is to treble in size. You are then to move your brigade and its strategically immobile main battle tanks to Saudi Arabia in order to counter Iraqi aggression. You will be operating under the tactical control of the United States Marine Corps. Oh, and by the way, the first ship leaves in two weeks' time.'[5] A great deal had taken place in the intervening period since he had received that piece of earth-shattering news, but now all the long months of preparation were over and the brigade was about to be involved in the ground operations phase of the Gulf War, code-named 'Desert Sabre'. Undoubtedly, it had been due in no small way to Patrick Cordingley's character, his patience, cheerfulness and leadership that despite all the added duties and distractions which had been thrust upon it, the brigade had been declared operationally ready for battle in mid-November – just one short month after the leading elements had arrived in Saudi Arabia.

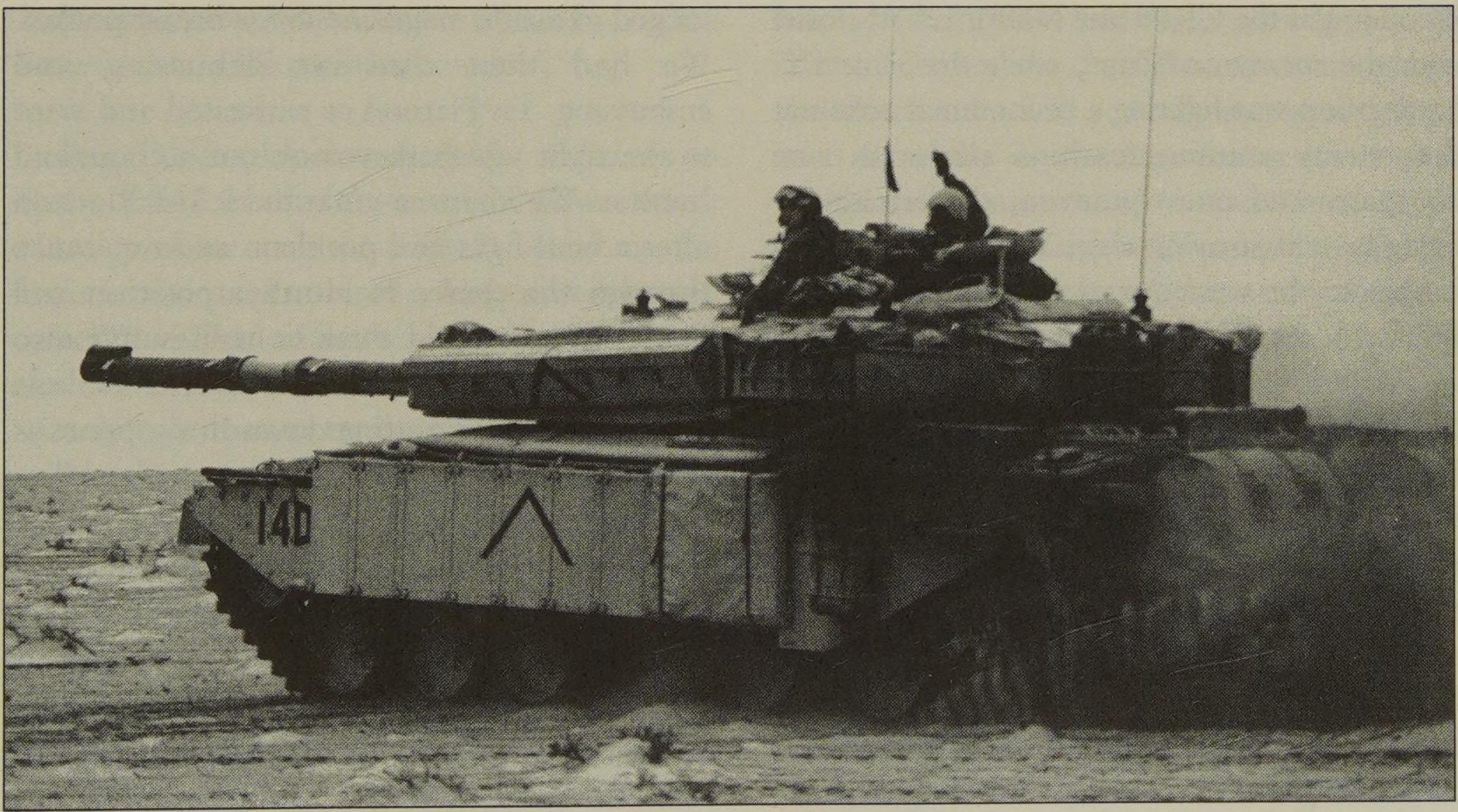
Patrick Cordingley was born in 1944 and after being educated at Sherborne School in Dorset he joined the Army in 1963. Commissioned into the 5th Royal Inniskilling Dragoon Guards two years later, he saw service in Libya, Cyprus, Germany and Canada, before becoming one of the select band of instructors at the British Army Staff College. This was followed in late 1984 by command of his regiment – the prize job for which every regular officer worth his salt strives – followed in December 1988 by the even more demanding task of commanding an armoured brigade group, in this case the crack 7 Armd. A highly competent professional soldier, he is also the author of a biography on Capt Lawrence Oates, another heroic Inniskilling Dragoon, who had written his own imperishable epitaph when he sacrificed his life during Scott's fateful expedition to the South Pole. Clearly the lure of the Antarctic took a firm hold upon Patrick and he managed to go out there himself on a small expedition in 1984.

On 24 February 1991 operations had begun at 0400 hrs with the breaching of the enemy defences. For various reasons 7 Armd Bde's advance had been delayed until noon on the 25th, but from then on it had moved up to its start line with remarkable speed, despite the congestion in the breach area, so that 'F' Echelon of the brigade was complete and ready at its forming up points by 1400 hrs. A quick replenishment then took place, as all commanders were naturally keen to start the battle with full tanks, and, at 1515 hrs, the first Challengers moved forward into battle. Patrick Cordingley, who had been sitting on top of his tank reflecting on the situation as the replenishment took place, recalled: 'It was cold, wet and overcast. We were all in our NBC suits[6] and quite expecting the enemy to use chemical weapons against us. We did not know exactly what state his artillery was in and we were not certain where the Republican Guard was. Despite the fact that we knew the enemy's morale was low it was for nearly all of us "a first" and I felt keenly that the soldiers must be concerned. My own problem lay in a lack of information.' As H-Hour arrived it was accompanied by the explosions of hundreds of artillery rounds from the division's guns, which were located under 1,000 yd away to the east.

'Time seemed to stand still as the man-made inferno continued. "I can't believe anyone under this onslaught can do anything but surrender, if they survive. Poor bastards," I said to no-one in particular. The air was rank with a smell like fireworks. I think it was this that shook me out of my trance. I had a job to do. In a few minutes the advance would continue against an enemy position, perhaps several thousand men.



The final briefing, held in mid-February 1991 to explain to 7 Armd Bde Gp commanders how they would get through the vast Iraqi minefield, via the routes to be cleared for them by 1 US Inf Div. (Gen Patrick Cordingley)



At 1515 hrs on the afternoon of 25 February 1991, Brig Cordingley gave the order to advance, signalling to the rest of his headquarters by waving his hand. Richard Kemp checks to ensure that they are all following! (Gen Patrick Cordingley)

After the entire might of our artillery had been brought to bear on a few square miles of Iraqi desert and the men defending it, our job was to complete the destruction.

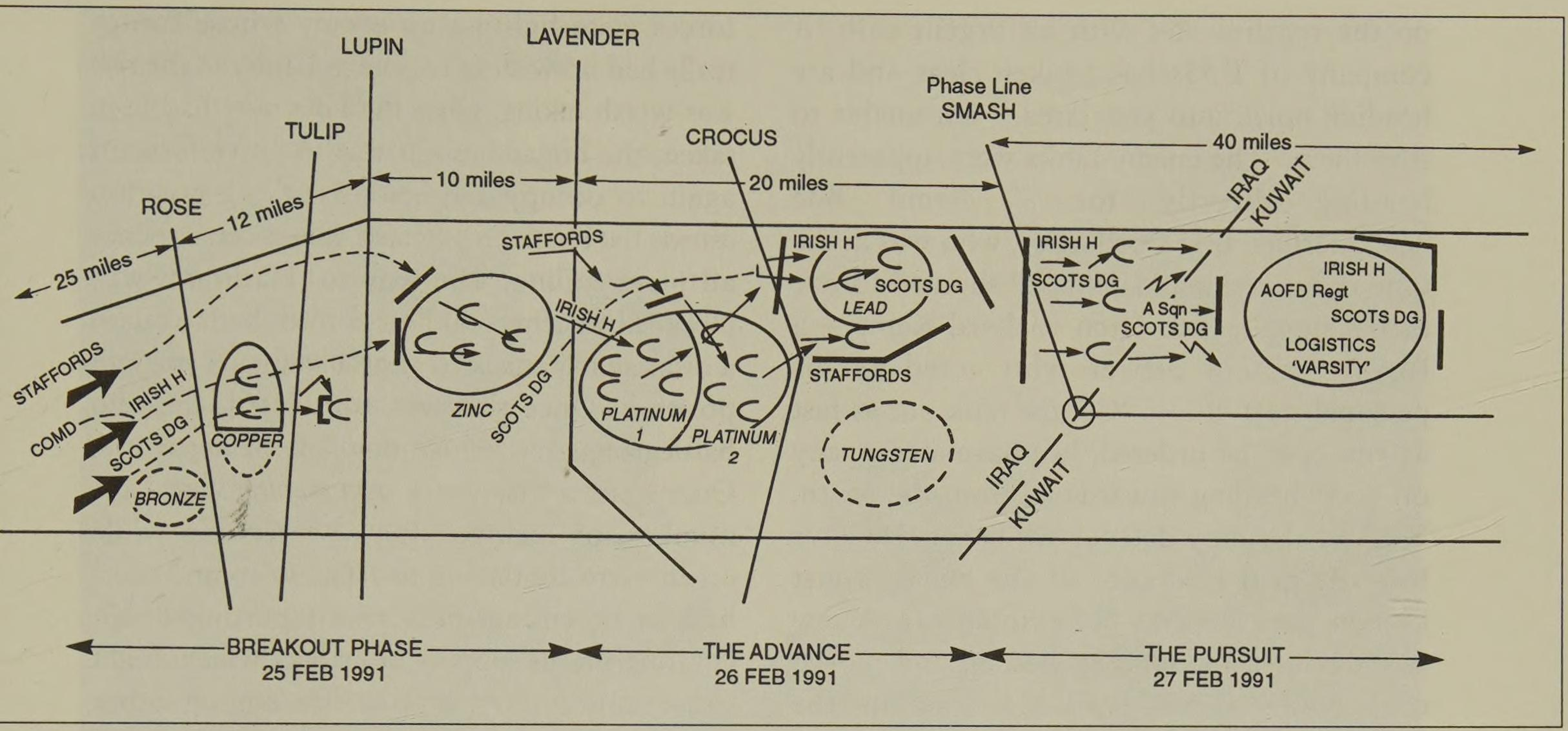
'I clambered on top of my tank and picked up the radio headsets. "Right then, let's go." '[7]

At 1515 hrs the QRIH (with three tank sqns) had advanced, its orders being to occupy Objective 'Zinc' as quickly as possible. The rest of the brigade – comprising two battlegroups: the Staffords, with two companies and two tank squadrons under command, on the left and the Scots DG (three sqns and one inf coy) on the right, began moving some fifteen minutes later, the latter had been ordered to destroy an enemy communications centre in Objective 'Copper' on the boundary with 4 Armd Bde Gp, then to confirm and destroy a logistic site a little further east. The Staffords were principally concerned with the taking of Objective 'Zinc', which was thought to contain an Iraqi brigade. The initial advance went well, so that by last light the leading troops had made their first contacts with the enemy and taken their first prisoners. By midnight the QRIH and Staffords had closed with the enemy on 'Zinc', while the Scots DG battlegroup was fighting a dismounted action at the enemy communications site with one company and one squadron, the remainder being busy destroying Iraqi T-55 medium tanks further to the west. An eyewitness of the Scots DG battle recalled:

'As night fell the columns of tanks closed up. Only the red turret lights betrayed the presence of the mass of moving armour. Suddenly reports of the enemy came in from D Sqn on the right. It was not a pre-planned attack but we knew that there was a defended divisional headquarters in the area. As we advanced the tanks began to pick up the objective with their thermal sights. As well as seeing the mast they reported bunkers and other positions around it and they were clearly occupied.

'It was a particularly unpleasant night; it was raining quite heavily and visibility was down to 15 metres before you could see anything the size of a Warrior. It was absolutely black. Thirty seconds before we went in the tanks opened up and when the vehicles they hit started burning, the infantry had a reference point to aim for. The attack was brilliant. All the drills worked. On the objective there was the main command site and then off to the right, an area of bunkers and trenches. These objectives were allocated over the radio and the platoons split to them about 300 metres out.

'And when the infantry debussed and stepped into the blackness it was a step into the unknown for them. They had to overcome fear as they pulled their bodies away from the Warriors and went down and crawled forward desperately looking for a target and then a sprint forward with rain and sweat in their eyes and down again before they got to the bunkers areas. Bullets, both friendly and enemy seemed to be flying everywhere. Private Evan's life was saved when an AK47 bullet lodged in a rifle magazine in his breast pocket. We had then constant debussing and embussing. 1st Platoon re-embussed and went to the right where they took out a command bunker. We then re-embussed 3rd Platoon after a brief fight and put them and two tanks through the centre to another position and there they sustained three casualties. We also had another tank and one of the Milans grouped together putting down fire support as that platoon ran in. As soon as another position was identified fire was put down. You could see where the tracer was going and where it was being fired from. When we were sure we were not firing at each other we would move on again. Some of the assaults were very tight and it was undoubtedly a concerning time. The potential of running one tank/platoon group into the other was enormous. The squadron and the company


LUPIN
LAVENDER
TULIP
CROCUS
Phase Line SMASH
ROSE
25 miles
12 miles
10 miles
20 miles
40 miles
IRAQ
KUWAIT
STAFFORDS
IRISH H
SCOTS DG
LEAD
A Sqn
AOFD Regt
LOGISTICS 'VARSITY'
STAFFORDS
COMD
COPPER
BRONZE
ZINC
PLATINUM 1
PLATINUM 2
TUNGSTEN
BREAKOUT PHASE 25 FEB 1991
THE ADVANCE 26 FEB 1991
THE PURSUIT 27 FEB 1991

7 Armd Bde operations, 25–7 February 1991. (Diagram: M. Komarnyckyj)
C = Iraqi positions

regrouped swiftly and although we had taken five casualties we all knew that whatever else happened we had done it and despite atrocious conditions it had worked.'[8]

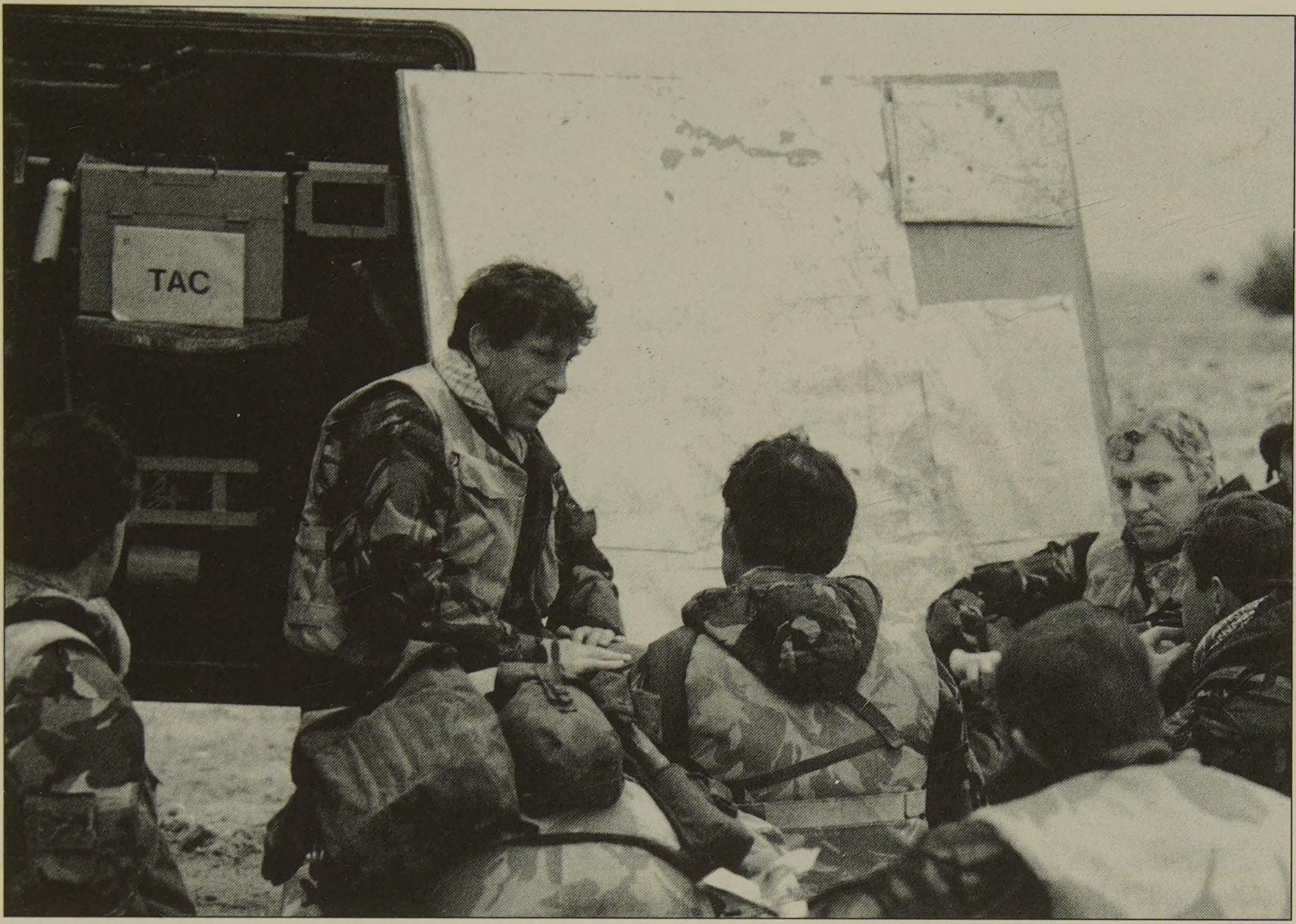
Brig Cordingley now had two decisions to make; firstly, whether to wait until dawn before moving on to continue with an attack on the logistic site, and secondly, how and when to attack the 'Zinc' objective. By midnight he had decided to delay the first of these actions, as it was thought that an enemy hospital was located within the complex. Instead, they would send in a US Army 'psyops' loudspeaker team at first light, to try to get the enemy to surrender. The rest of the brigade would move on to 'Zinc', after suspected enemy artillery and mechanized infantry had been thoroughly strafed by the artillery, including M109 and M110 SP guns and the devastating Multi-Launch Rocket System (MLRS), which was popularly known as the 'Grid Square Remover'. He recalled later: 'I was somewhat horrified by the awesome and spectacular display of firepower, however, it allowed the QRIH and the Staffords to creep forward throughout the night and secure most of the objective by 5.30 a.m. whilst minimising our own casualties.' At one stage during this cautious advance, the enemy tried to counter-attack, the QRIH Challengers suddenly seeing through their thermal sights multiple contacts across the entire front. The leading squadron had been advancing up the back of a slope and just over the rim it picked up the enemy via the numerous thermal contacts. It took them on immediately, initially opening fire at maximum range. For the next ninety minutes they continued firing, the Iraqi tanks with minimal night vision equipment being at a major disadvantage and losing many of their AFVs as a result.

Soon after dawn the initiative passed to 4 Armd, which gave 7 Bde a chance to replenish and rearm. Suddenly, commander of 4 Armd, Brig Christopher Hammerbeck, came on the rearlink net with an urgent call: 'A company of T-55s has broken clear and are heading north into your area. I am unable to stop them.' The enemy tanks were apparently heading directly for 7 Armd Bde headquarters. Brig Cordingley, who was at the time in his command vehicle,[9] shouted to one of his signallers to fetch Richard Kemp – a Royal Anglian officer who acted as his personal staff officer. 'Get the tank out as fast as you can,' he ordered, 'we have a company of T-55s heading towards us from the south. You are the only defence we have!' He gave him the grid reference of the enemy's last known position and he sprinted off. A few seconds later, the tank started up and moved out, while every available man in the headquarters took cover, armed with a variety of anti-tank weapons. 'Despite the threat, I had to concentrate on the battle', commented Patrick Cordingley. Fortunately, the enemy counter-attack failed to materialize, and, when the brigade moved forward again, it rapidly became clear that the enemy had little stomach for the battle, the most immediate, and from then on the ever present problem was what to do with the hundreds of prisoners who were surrendering in droves.

The orders from 1 Armd Div HQ were quite straightforward: to attack Objectives 'Platinum' and 'Lead' once 4 Bde had taken 'Brass'. For this operation it would need maximum artillery and air support, so it was necessary to wait until the artillery was back in its support. The QRIH battlegroup was to move first to secure the western side of 'Platinum', then the Staffords would take the eastern side, finally the Scots DG would move behind them to secure 'Lead'. There was a considerable element of risk in the plan, as it meant once again Brig Cordingley splitting his force, while it had been estimated by intelligence sources that they could be attacking an entire Iraqi division, albeit not at full strength. However, it was also clear that the Coalition forces were fighting an enemy whose troops really had no wish to engage in battle, so the risk was worth taking. Once the objectives had been taken, the brigade group was to move forward again to occupy a brigade blocking position astride the Phase Line Smash. It was certainly not all plain sailing. The way to 'Platinum' was blocked by enemy and the Staffords had to put in a dismounted attack to clear a company-strength position. Once this was completed, the two battlegroups moved to their line of departure. Once again a major task was dealing with large numbers of enemy trying to surrender, while others were continuing to fight, so commanders had to be circumspect about putting down covering fire in support of attacks which might cause unnecessary loss of life among other elements of the disorganized Iraqi Army.

Having taken all its objectives successfully, the brigade was then ordered to attack eastwards in the early hours of the 27th, to cross the Iraqi/Kuwait border and secure an objective ('Varsity') some 60 km north-west of Kuwait City. The advance started on time and by 0930 hrs brigade headquarters had crossed into Kuwait, stopping to celebrate with a cup of tea. Patrick Cordingley recalled: 'As I climbed out of my tank for nearly the first time in two days I became conscious of oily black smoke which was blotting out the sun. I had summoned my commanding officers; it was the first time that we had seen each other since leaving Saudi Arabia. After discussing future plans we started to collate estimates of battle statistics and at that stage I believe that we had destroyed 76 enemy tanks, 68 APCs, 18 artillery pieces and captured in excess of 3,000 prisoners. We had advanced some 250 kilometres since leaving Ray.' When the ceasefire was called, the brigade was firmly located astride the Kuwait–Basra road amidst scenes of indescribable carnage and destruction.

Operation 'Desert Sabre', which was fought by the Coalition forces against one of the largest and supposedly best equipped armies in



Now on the final objective – 'Varsity'. Brig Cordingley talks face to face with his commanders on 27 February 1991, the first time he has seen them for 2½ days. (Gen Patrick Cordingley)

the world, proved to be a resounding success, thanks in no small way to the technical superiority of the American, British and other Western weapons and equipment. However, what had undoubtedly really won the war was the superlative professionalism and bravery of the Coalition soldiers, men and women like Brig Patrick Cordingley and his 7 Armd Bde Gp. The citation for the award of his Distinguished Service Order emphasizes the fact that in the battle it was his courage and leadership that were most evident:

'. . . He led and inspired his Brigade to achieve a series of complete successes – successes that were the more remarkable, for few of his Brigade had been in action before. He was well to the fore in his tank in the Divisional attack, which took place at night, in driving rain and blowing sand, and after a 90 kilometres approach march. His Brigade was in the lead and the momentum of the attack was maintained by his calm leadership and decisiveness. . . . 7th Armoured Brigade covered some 200 kilometres in 65 hours, at least half of that distance in the face of the enemy. That it did is in large part due to the gallant leadership and inspiration of Brigadier Cordingley.'

Patrick Cordingley has been far from idle since the Gulf War. After attending the Royal College of Defence Studies he was promoted to

On 5 November 1991 Brig Cordingley received his DSO from HM The Queen at Buckingham Palace. He is seen here with his wife, Melissa, and daughters Miranda (left) and Antonia. (Gen Patrick Cordingley)

major general and commanded the Second Division in the UK. This was followed by taking a Ph.D. at Hull University, researching decision making in the Gulf region, particularly in times of stress and conflict, then by an Arabic language course. During this period he has also found time to write a best-seller on his experiences in the Gulf War, entitled *In the Eye of the Storm*. He is now Senior British Loan Service Officer in the Sultanate of Oman.

NOTES

1. The Flying Tigers, who were commanded by Maj Gen Claire L. Chennault, were the nucleus of the American Volunteer Group which fought the Japanese in China and Burma. The 'Tigers' never numbered more than 200 aircraft, but were highly successful, as was Chennault's next command, the China Air Task Force (XIVth USAAF), which ran the supplies into China over 'The Hump' (the Himalayas).
2. The HMMWV – High Mobility Multi-Weapons Vehicle, known by the GIs as the 'Humvee' – is a 3.8-ton wheeled vehicle, with a top speed of over 65 m.p.h. It first came into service in the 1980s and there are now well over 80,000 in service in a wide variety of roles.
3. 'Prep' is an artillery term meaning to engage the target area with continual artillery fire in order to 'soften it up' prior to an assault.
4. TOW – Tube-launched, Optically-tracked, Wire-guided missile. TOW is a two-stage solid projectile weighing 40 lb with a range of 3,280 yd.

5. Quoted from *The Gulf War – a personal account* by Brig P.A.J. Cordingley, published in the Seaford House Papers for 1991.

6. NBC – Nuclear, Chemical and Biological. These 'Noddy' suits, as they were popularly called, when worn with the standard respirator, were intended to give the wearer complete protection against the chemical weapons which it was known that Saddam Hussein possessed. In addition, of course, all troops had received a course of inoculations, which have, in some cases since the Gulf War, produced their own problems.

7. Quoted from the last paragraph of the Prologue to *In the Eye of the Storm* by Maj Gen Patrick Cordingley.

8. As Note 5, above.

9. Both battlegroup and brigade group headquarters comprised, in addition to main battle tanks, a number of Sultan command vehicles with canvas penthouses, which were normally arranged in groups called 'diamonds' so that there was maximum covered space in which the staff officers could carry out their duties. The commander would make use of both his MBT and ACV as his mobile command post depending upon the battle situation.

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Jacket illustrations. Front, top: Brigadier Patrick Cordingley's Challenger tank, Gulf War, 1991 (Gen Patrick Cordingley); bottom: one of Brigadier Avigdor Kahalany's tanks in action against the Syrians on Booster Hill, October 1973 (Eshel Dramit Ltd). Back, top: Colonel Creighton Abrams shares some refreshment with Colonel Harold Cohen, Europe, 1944 (Patton Museum); bottom: a Soviet tank officer briefs his tank commanders on the Eastern Front, 1945 (CAFM).

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